

RECEIVED

FEB 27 2002

TECH CENTER 1600/2900

1

SEQUENCE LISTING



<110> KALEEN, ZHONGYILI  
MORELL, MATTHEW  
RAHMAN, SADEQUR

<120> REGULATION OF GENE EXPRESSION IN PLANTS

<130> 054270/0126

<140> 09/508,377

<141> 2000-06-09

<150> AU PP 2509

<151> 1998-03-20

<150> PCT/AU98/00743

<151> 1998-09-11

<150> AU PP 9108

<151> 1997-09-12

<160> 71

<170> PatentIn Ver. 2.1

<210> 1

<211> 18

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Primer

<220>

<221> modified\_base

<222> (4)

<223> a, t, c, g, other or unknown

<220>

<221> modified\_base

<222> (7)

<223> a, t, c, g, other or unknown

<220>

<221> modified\_base

<222> (10)

<223> a, t, c, g, other or unknown

<400> 1

ggcnacngcn gargaygg

18

<210> 2

<211> 19

<212> DNA

<213> Artificial Sequence

&lt;220&gt;

&lt;223&gt; Description of Artificial Sequence: Primer

&lt;400&gt; 2

tacatttcct tgtccatca

19

&lt;210&gt; 3

&lt;211&gt; 18

&lt;212&gt; DNA

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; Description of Artificial Sequence: Primer

&lt;400&gt; 3

atcacgagag cttgctca

18

&lt;210&gt; 4

&lt;211&gt; 23

&lt;212&gt; DNA

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; Description of Artificial Sequence: Primer

&lt;400&gt; 4

cggtacacag ttgcgtcatt ttc

23

&lt;210&gt; 5

&lt;211&gt; 2687

&lt;212&gt; DNA

&lt;213&gt; Triticum tauschii

&lt;400&gt; 5

```

atcgacgaag atgctctgcc tcaccgcccc ctctgctcg ccatctctcc cgccgcgccc 60
ctcccgtecc gctgctgacc ggcccgagacc ggggatttcg gccaaagagca agttctctgt 120
tcccgtgtct gcgccaagag actacaccat ggcaacagct gaagatgggtg ttggcgacct 180
tccgatatac gatctggatc cgaagtttgc cggcttcaag gaacacttca gttataggat 240
gaaaaagtac cttgaccaga aacattcgat tgagaagcac gagggaggcc ttgaagagtt 300
ctctaaaggc tatttgaagt ttgggatcaa cacagaaaat gacgcaactg tgtaccggga 360
atgggcccct gcagcaatgg atgcacaact tattggtgac ttcaacaact ggaatggctc 420
tgggcacagg atgacaaagg ataattatgg tgtttggtca atcaggattt cccatgtcaa 480
tgggaaacct gccatcccc ataattccaa gggttaaatt cgatttcacc gtggagatgg 540
actatgggtc gatcggttc ctgcatggat tcgttatgca acttttgacg cctctaaatt 600
tggagctcca tatgacggtg ttcactggga tccaccttct ggtgaaagggt atgtgtttta 660
gcatectcgg cctcgaaagc ctgacgctcc acgtatttac gaggtcatg tggggatgag 720
tggtgagagg cctgaagtaa gcacatacag agaatttgca gacaatgtgt taccgcgcat 780
aaaggcaaac aactacaaca cagttcagct gatggcaatc atggaacatt ccatattatg 840
cttcttttgg taccatgtga cgaatttctt cgcagttagc agcagatcag gaacaccaga 900
ggacctcaaa tatcttggtg acaaggcaca tagcttaggg ttgcgtgttc tgatggatgt 960
tgtccatagc catgcgagca gtaatatgac agatgggtcta aatggctatg atgttgga 1020
aaacacacag gagtccatt tccatacagg agaaaggggt tatcataaac tgtgggatag 1080
tcgcctgttc aactatgcca attgggaggt cttacgggtat cttctttcta atctgagata 1140
ttggatggac gaattcatgt ttgacggctt ccgatttgat ggagtaacat ccatgtcata 1200
taatcaccat ggtatcaata tgtcattcgc tggaaattac aaggaatatt ttggtttgga 1260

```

```

taccgatgta gatgcagttg ttacatgat gcttgcgaa cattaatgc aaaaaatctt 1320
gccagaagca actgttggtg cagaagatgt ttcaggcatg ccagtgttt gtcgggtcagt 1380
tgatgaaggt ggagtagggt ttgactatcg ccttgctatg gctattcctg atagatggat 1440
tgactacttg aagaacaaag atgaccttga atgggtcaatg agtgcaatag cacatactct 1500
gaccaacagg agatatacgg aaaagtgc atgcatatgct gagagccacg atcagtctat 1560
tggtggcgac aagactatgg catttctctt gatggacaag gaaatgtata ctggcatgtc 1620
agacttgcag cctgcttcac ctacaattga tcgtggaatt gcacttcaaa agatgattca 1680
cttcatcacc atggcccttg gaggtgatgg ctacttgaat tttatgggta atgagtttg 1740
ccaccagaa tggattgact ttccaagaga aggcaacaac tggagttagt ataaatgcag 1800
acgccagtgg agcctctcag acattgatca cctacgatac aagtacatga acgcatttga 1860
tcaagcaatg aatgcgctcg acgacaagtt ttccttccta tcgtcatcaa agcagattgt 1920
cagcgacatg aatgaggaaa agaagattat tgtatttgaa cgtggagatc tgggtcttcgt 1980
cttcaatttt catcccagta aaacttatga tggttacaaa gtcggatgtg atttgcctgg 2040
gaagtacaag gtagctctgg actccgatgc tctgatgttt ggtggacatg gaagagtggc 2100
ccagtacaac gatcacttca cgtcacctga aggagtacca ggagtacctg aaacaaactt 2160
caacaaccgc cctaattcat tcaaagtctt gtctccaccc cgcacttggt tggcttacta 2220
tcgcgtcgag gaaaaagcgg aaaagcctaa ggatgaagga gctgcttctt ggggcaaagc 2280
tgctcctggg tacatcgatg ttgaagccac tcgtgtcaaa gacgcagcag atgggtgaggc 2340
gacttctggg tccaaaaagg cgtctacagg aggtgactcc agcaagaagg gaattaactt 2400
tgtcttcggg tcacctgaca aagataacaa ataagcacca tatcaacgct tgatcagaac 2460
cgtgtaccga cgtccttgta atattcctgc tattgctagt agtagcaata ctgtcaaact 2520
gtgcagactt gagattctgg cttggacttt gctgaggtta cctactatat agaaagataa 2580
ataagaggtg atgggtgcgg tcgagtcggg ctatatgtgc caaatatgcg ccatcccgag 2640
tcctctgtca taaaggaagt ttcgggcttt cagcccagaa taaaaaa 2687

```

<210> 6

<211> 807

<212> PRT

<213> *Triticum tauschii*

<400> 6

```

Met Leu Cys Leu Thr Ala Pro Ser Cys Ser Pro Ser Leu Pro Pro Arg
 1              5              10              15

Pro Ser Arg Pro Ala Ala Asp Arg Pro Gly Pro Gly Ile Ser Ala Lys
 20              25              30

Ser Lys Phe Ser Val Pro Val Ser Ala Pro Arg Asp Tyr Thr Met Ala
 35              40              45

Thr Ala Glu Asp Gly Val Gly Asp Leu Pro Ile Tyr Asp Leu Asp Pro
 50              55              60

Lys Phe Ala Gly Phe Lys Glu His Phe Ser Tyr Arg Met Lys Lys Tyr
 65              70              75              80

Leu Asp Gln Lys His Ser Ile Glu Lys His Glu Gly Gly Leu Glu Glu
 85              90              95

Phe Ser Lys Gly Tyr Leu Lys Phe Gly Ile Asn Thr Glu Asn Asp Ala
100              105              110

Thr Val Tyr Arg Glu Trp Ala Pro Ala Ala Met Asp Ala Gln Leu Ile
115              120              125

Gly Asp Phe Asn Asn Trp Asn Gly Ser Gly His Arg Met Thr Lys Asp
130              135              140

```

Asn	Tyr	Gly	Val	Trp	Ser	Ile	Arg	Ile	Ser	His	Val	Asn	Gly	Lys	Pro	145	150	155	160
Ala	Ile	Pro	His	Asn	Ser	Lys	Val	Lys	Phe	Arg	Phe	His	Arg	Gly	Asp	165	170	175	
Gly	Leu	Trp	Val	Asp	Arg	Val	Pro	Ala	Trp	Ile	Arg	Tyr	Ala	Thr	Phe	180	185	190	
Asp	Ala	Ser	Lys	Phe	Gly	Ala	Pro	Tyr	Asp	Gly	Val	His	Trp	Asp	Pro	195	200	205	
Pro	Ser	Gly	Glu	Arg	Tyr	Val	Phe	Lys	His	Pro	Arg	Pro	Arg	Lys	Pro	210	215	220	
Asp	Ala	Pro	Arg	Ile	Tyr	Glu	Ala	His	Val	Gly	Met	Ser	Gly	Glu	Arg	225	230	235	240
Pro	Glu	Val	Ser	Thr	Tyr	Arg	Glu	Phe	Ala	Asp	Asn	Val	Leu	Pro	Arg	245	250	255	
Ile	Lys	Ala	Asn	Asn	Tyr	Asn	Thr	Val	Gln	Leu	Met	Ala	Ile	Met	Glu	260	265	270	
His	Ser	Ile	Leu	Cys	Phe	Phe	Trp	Tyr	His	Val	Thr	Asn	Phe	Phe	Ala	275	280	285	
Val	Ser	Ser	Arg	Ser	Gly	Thr	Pro	Glu	Asp	Leu	Lys	Tyr	Leu	Val	Asp	290	295	300	
Lys	Ala	His	Ser	Leu	Gly	Leu	Arg	Val	Leu	Met	Asp	Val	Val	His	Ser	305	310	315	320
His	Ala	Ser	Ser	Asn	Met	Thr	Asp	Gly	Leu	Asn	Gly	Tyr	Asp	Val	Gly	325	330	335	
Gln	Asn	Thr	Gln	Glu	Ser	Tyr	Phe	His	Thr	Gly	Glu	Arg	Gly	Tyr	His	340	345	350	
Lys	Leu	Trp	Asp	Ser	Arg	Leu	Phe	Asn	Tyr	Ala	Asn	Trp	Glu	Val	Leu	355	360	365	
Arg	Tyr	Leu	Leu	Ser	Asn	Leu	Arg	Tyr	Trp	Met	Asp	Glu	Phe	Met	Phe	370	375	380	
Asp	Gly	Phe	Arg	Phe	Asp	Gly	Val	Thr	Ser	Met	Leu	Tyr	Asn	His	His	385	390	395	400
Gly	Ile	Asn	Met	Ser	Phe	Ala	Gly	Asn	Tyr	Lys	Glu	Tyr	Phe	Gly	Leu	405	410	415	
Asp	Thr	Asp	Val	Asp	Ala	Val	Val	Tyr	Met	Met	Leu	Ala	Asn	His	Leu	420	425	430	
Met	His	Lys	Ile	Leu	Pro	Glu	Ala	Thr	Val	Val	Ala	Glu	Asp	Val	Ser	435	440	445	

Gly Met Pro Val Leu Cys Arg Ser Val Asp Glu Gly Gly Val Gly Phe  
 450 455 460  
 Asp Tyr Arg Leu Ala Met Ala Ile Pro Asp Arg Trp Ile Asp Tyr Leu  
 465 470 475 480  
 Lys Asn Lys Asp Asp Leu Glu Trp Ser Met Ser Ala Ile Ala His Thr  
 485 490 495  
 Leu Thr Asn Arg Arg Tyr Thr Glu Lys Cys Ile Ala Tyr Ala Glu Ser  
 500 505 510  
 His Asp Gln Ser Ile Val Gly Asp Lys Thr Met Ala Phe Leu Leu Met  
 515 520 525  
 Asp Lys Glu Met Tyr Thr Gly Met Ser Asp Leu Gln Pro Ala Ser Pro  
 530 535 540  
 Thr Ile Asp Arg Gly Ile Ala Leu Gln Lys Met Ile His Phe Ile Thr  
 545 550 555 560  
 Met Ala Leu Gly Gly Asp Gly Tyr Leu Asn Phe Met Gly Asn Glu Phe  
 565 570 575  
 Gly His Pro Glu Trp Ile Asp Phe Pro Arg Glu Gly Asn Asn Trp Ser  
 580 585 590  
 Tyr Asp Lys Cys Arg Arg Gln Trp Ser Leu Ser Asp Ile Asp His Leu  
 595 600 605  
 Arg Tyr Lys Tyr Met Asn Ala Phe Asp Gln Ala Met Asn Ala Leu Asp  
 610 615 620  
 Asp Lys Phe Ser Phe Leu Ser Ser Ser Lys Gln Ile Val Ser Asp Met  
 625 630 635 640  
 Asn Glu Glu Lys Lys Ile Ile Val Phe Glu Arg Gly Asp Leu Val Phe  
 645 650 655  
 Val Phe Asn Phe His Pro Ser Lys Thr Tyr Asp Gly Tyr Lys Val Gly  
 660 665 670  
 Cys Asp Leu Pro Gly Lys Tyr Lys Val Ala Leu Asp Ser Asp Ala Leu  
 675 680 685  
 Met Phe Gly Gly His Gly Arg Val Ala Gln Tyr Asn Asp His Phe Thr  
 690 695 700  
 Ser Pro Glu Gly Val Pro Gly Val Pro Glu Thr Asn Phe Asn Asn Arg  
 705 710 715 720  
 Pro Asn Ser Phe Lys Val Leu Ser Pro Pro Arg Thr Cys Val Ala Tyr  
 725 730 735  
 Tyr Arg Val Glu Glu Lys Ala Glu Lys Pro Lys Asp Glu Gly Ala Ala  
 740 745 750

Ser Trp Gly Lys Ala Ala Pro Gly Tyr Ile Asp Val Glu Ala Thr Arg  
755 760 765

Val Lys Asp Ala Ala Asp Gly Glu Ala Thr Ser Gly Ser Lys Lys Ala  
770 775 780

Ser Thr Gly Gly Asp Ser Ser Lys Lys Gly Ile Asn Phe Val Phe Gly  
785 790 795 800

Ser Pro Asp Lys Asp Asn Lys  
805

<210> 7

<211> 319

<212> DNA

<213> *Triticum tauschii*

<400> 7

gcgacttctg	gttccaaaaa	ggcgtctaca	ggagggtgact	ccagcaagaa	gggaattaac	60
tttgtcttcg	ggtcacctga	caaagataac	aaataagcac	catatcaacg	cttgatcaga	120
accgtgtacc	gacgtccttg	taatattcct	gctattgcta	gtagtagcaa	tactgtcaaa	180
ctgtgcagac	ttgagattct	ggcttggact	ttgctgaggt	tacctactat	atagaaagat	240
aaataagagg	tgatgggtcg	ggtcgagtc	ggctatatgt	gccaaatatg	cgccatcccg	300
agtcctctgt	cataaagga					319

<210> 8

<211> 4890

<212> DNA

<213> *Triticum tauschii*

<400> 8

gggtggcggg	tcggggcgga	aggcgcgggg	cggcgggggc	gccggggcg	cgcgggcg	60
cggcgggcag	cggcgggctag	ggtttcgcgg	cggcgggcgac	ttgggctgag	gcggggcg	120
ggctgcggct	ttaaaggccg	gccaggctga	gggtgcgggg	tcggacacgg	cccgtgaagg	180
ggttgacttt	aaaaaataat	aattcggaca	tgcaaaaaag	taagaaaaga	aataataaac	240
ggactccaaa	aatcccgaag	taaatttttc	cccattctta	aaaataagcc	ggacaagatg	300
aacattttat	tgggcctaaa	atgcaatttt	gaaaaatg	tatttttctt	aattcgggaat	360
aaaatcaaat	aaaatccaaa	taaaatcaaa	tatttgtttt	taatatTTTT	cctccaatat	420
ttcatttttt	gtgaagaagt	catttttatcc	catctcatat	attttgatat	gaaatatTTT	480
cggagagaaa	aataattaaa	acaaatgatc	ctattttcaa	aatttgagaa	aacccaaata	540
tgaaaataac	gaaatcccca	actctctccg	tgggtccttg	agttgcgtga	aatttctagg	600
atcacaaatc	aaaatgcaat	aaaatatgat	atgcatgatg	atctaagtga	taacattcca	660
attgaaaatt	tgggatgtta	catataactc	aaattctata	attatgaaca	cagaaatatt	720
aatgtagaac	tctattttgt	tttgaaattg	tattattttt	tagaattagt	ctagagcatt	780
tcgtgaactt	gaatcaaacc	tttaataaaa	acaaagcata	aaaatgacaa	attcacatat	840
gaaataactt	gtgttacata	gattttattac	aatagcggtg	tatgtgtgta	tgtgtgcgtg	900
agtgcctatg	gtaatatcaa	taaatatctt	gatagatgtt	tctacaattc	acgggtctaa	960
ctagtaaatg	aatgcaatgc	atgctaaaag	aatagaacct	tagtttcatt	taactaacia	1020
ttttcaaatg	tatgagttgc	caacaagtgg	catacttggc	actgtttgtt	tgttcatttt	1080
atggaaaagt	cttctctttt	tacatggttt	agattccagc	atgtagccac	aaaatatgat	1140
tgtcaaaaaga	taataacctca	taatacaatt	ccactaaagt	cacctagccc	aagtgaccga	1200
cctgatcctg	aaataaaaatc	agaagatttg	gtgtcatcat	catgacaaca	aattattagg	1260
cggtagatct	tgtggtagta	ctcatgatgt	aaaattatca	agagggagag	aatgtatgga	1320
gattttatgtg	aagtacatcg	tacaccagac	atagttgaca	catcgatttt	ttagatata	1380
tttgacgcg	ccttgtggga	gtgtaaaagta	ctaccatgta	ttagaagagg	tgaaatgaga	1440
aatgccatag	ctagcaagta	ggcctagtta	aggaaattct	tccttagatc	cccttctccc	1500

gaagagtga	gtgcttcaac	taaagggttag	accacttaa	aaaatgtcac	tttgaatctt	1560
tgcttccctt	gtcgtaatcc	tgtgcatttg	taggtccctc	ggatctgagc	cctttctcca	1620
agcccttcat	tggattcccc	tggatgtctt	tttggtacat	tttattgaag	tgagagtga	1680
ttatttatatg	cccataggag	gtgggatata	aaggctgttg	gtattctgca	ccatacatgc	1740
tagagttagg	aggagaggct	ggtgcatgat	acatgggtgga	ctagcccata	tattttacccc	1800
ccccccaccc	actaacaagt	tttttttatt	aggtcttcat	cctctgattt	gtttttctgt	1860
tagcccattc	ttcatcatgg	acttattaat	catgattagt	ttcttggtt	tttgtttact	1920
tgacttgaat	ttgacaatgt	gcctcatata	tggcatgtgg	gactgatagg	aagatatatt	1980
ctcacaacat	taacttaaaa	aggattattt	ttttggtgca	gtcgtaaaga	aaactacttt	2040
cttttatgtc	aaaagttatt	caaacataga	tttataaaca	aaggatatca	ccatgcatga	2100
ccatgcgctc	tctcatgttt	actctagaaa	ccatatatct	ccttggtgca	aaatatTTaa	2160
tctatcctcc	ttgtttctgg	gaatgagtcg	gggaaggtaa	tcttagggaa	ggttaaagt	2220
aggcaagtaa	gagcaactct	agcagagtcg	cgatatgccc	aatcgccata	atgccaatat	2280
ggcattttttg	gcccataaatg	gcacttcaga	agagtcacca	tatcccttcg	gatagccata	2340
atttagggag	ctcgctccac	aaacaagctt	cgagcctcca	aatatggagg	ccatggattc	2400
gttggtttggc	actcactcca	tatccaaccg	caagcgcag	catgagggaa	gttttagctt	2460
cttctccttt	gcgccaacgc	cgggatttta	cacagcgcat	tacaggtaaa	tgaaccagca	2520
tgcacagata	atcacgcagc	agtgggtgga	caagaaggat	aagcaccctc	ccattagtgg	2580
tgcgcccact	cccccaaat	tcatgaggca	gccatttgga	tggtcacgc	gtggcataag	2640
ctcgcactat	aaaatctcaa	cggcatcacc	aaaaccatag	ctgccgcctc	ccccctcctc	2700
ggcatcacct	cccccaagaca	tctcctcccc	tctatgccac	aatgtcatca	ttatggagag	2760
acacaactac	tggtaaaccg	catacccaat	catgggttac	cggcagtgcg	aaccccacct	2820
tctctccacg	atggtaggat	attctcctcc	tagaatggcg	cgtgtggcgc	ttctcctccc	2880
cgaggtgat	atgtcggctc	ccatgatggc	gtgcatcatt	gatttggcgc	ttcgggtcca	2940
tcatacatgt	taacgaggtc	atccccattg	atgtcgttgg	ttcccttgcc	ccccagtcgg	3000
atcctgagga	cccgttcgat	gtcgcaatgc	gactctccaa	actcaaagct	cacaatgagg	3060
agtacgtcct	ctaggagttc	cgccccgcaa	ccatctataa	ggaggagcaa	cgatagctct	3120
cccctacgcc	ttcctcgacg	atctctctta	ggaggacaac	ggctagacga	cggcggcggc	3180
ggcgaaggta	gtgaacatag	tagaacatag	caatgtcgaa	tggcgacatt	gcataatttg	3240
aaaatgtcgc	tcaacgactt	ttgaagtcgc	aaataaaatg	tagtgtgact	acttttggcc	3300
agcaatataa	gtttatcaca	tttgataatg	atttgaaccg	gtgtggttca	actaaatgta	3360
ccataaattg	aacatacaaa	tttttagcaa	atgaaaaaag	aaacaagtaa	gaccacaaat	3420
atgaaagccg	catatcgcca	ctatgtgttt	gagccgcagc	tgccaagtac	atatgaagcg	3480
tactccatat	gacatacgac	aaccatacat	atgaagactc	tactagagtt	ctctaaggcc	3540
gcttttagcg	cctttcgtgc	agtggtgccc	atagggagtg	agggtagttg	gactgttcgt	3600
ttccctcttt	ttcattttct	tgaatcttat	tttatttttt	ttctcttttg	taggtttccc	3660
aaatttatat	accatttttc	tgtttctcgc	tattttttgt	tgtttatatt	tagtttcata	3720
tttttctatt	attaatttgt	gtctcttatg	agaagtccag	acttgcatat	ggaggtgcac	3780
acacaaacat	ataaagtata	aatactaact	tgagaagtat	gtttgcgtgg	tcaaaaaaac	3840
atcatcaaaa	cctgccaata	tgagatatag	ttttgaatat	atcaatatga	gcaacgcaac	3900
catttaaaat	gtgaacaatt	gttttttttag	aaaaaatata	agaaataact	ccaaccagc	3960
caaaccacat	gctatacact	tgctccatat	gaaaccatgt	ttgctatttg	gcagttgcct	4020
gaaaccgaaa	gtaatgttag	ccgtttttct	attcaaagaa	gaaggagagt	cgaggtgacg	4080
cgatgcttag	acgtgagatg	gggatgacca	caacgtccct	acagagacct	caccggagat	4140
ggggacattg	cagttgacac	gagagcggtg	aggggctcgc	atgcgtgtgc	ggcaacatgt	4200
ggcgaggcgg	acgtcgggct	ggcaggtagg	ggggaggggg	aaggaccggg	ggaggaagaa	4260
gaggagttagc	ctgcaaaaac	tggtacacca	gttttctgcc	ctacgaaaac	ctcatttcac	4320
tccccacccc	tgacaagcaa	caaccaacca	tcgcagtcct	acatgtccct	ctggtctttg	4380
caaaaagtaa	ttgttcttgc	tggacagcgc	aaagagtaaa	cttttggttag	ttttcatttc	4440
tagaaaaagc	aatcctttta	tagttctttt	gtgaaagtaa	tgcttttata	gtgattggga	4500
tgttctttta	gagcaaatat	cttctttttt	ttttagggaa	aagagcaaat	atcttccact	4560
tttcacaaaa	ctgacgaagg	ctgaaagtgg	cgagacagtg	agggcccata	gctttcgtcc	4620
ggcccgagcg	cgcacgaccg	tccacgtgca	ccccggccct	cccgggcccg	cagatccgtt	4680
ctccctcgcc	cccgtttccc	cctccctccc	tctcgttgct	tccactccac	tgttctcctc	4740
ttcctgtcca	aagcggccac	ggaccggaaa	aaaatcacgc	ctttcgttgg	ggtctccggc	4800
gccacactcc	tctcgggcc	gatataaagc	gcgcggggcc	acggggcccg	cgcaaaatgg	4860
gattcccgctc	cgccgccatg	gaggaagatg				4890

<210> 9  
 <211> 6228  
 <212> DNA  
 <213> *Triticum tauschii*

<400> 9  
 acggggcccg cgcaaaatgg gattcccgtc cgccgccatc gacgaagatg ctctgectca 60  
 ccgccccctc ctgctcgcca tctctccgc cgccccctc ccgtcccgt gctgaccggc 120  
 ccggaccggg gatctcggtg agtcagtcgg gatcttcatt tcttttcttt tctttcgttt 180  
 ccggtccgt tctgccggg tttccctgat gcgatgccgc gcgcgcgcag ggcggcggca 240  
 atgtgcggct gagcgcggtg cccgcgcct ctctcgctcg ctggtcgtgg ccgcggaagg 300  
 tgagccctct cccctgtcta cccagatttg cgaccgtgat cccctgttgt cgccgggcaa 360  
 acggaatctg atccacgggtg gttattggaa atagtatata ctactaataa acttgaggct 420  
 gggattcgtc cactgaggaa caagtggatg cgatttcgat tggatttctc tgctttatgc 480  
 gatecgtacg cagaatatcc ctctgcagt gtctcaaccg tattactgga tgtacaacc 540  
 aaatgtgtat aatctgtgct gaatgtatca accaataatt gctgcattgt gaaaacataa 600  
 tcctgtgttg tgtctctact acttgttcag tcctgatctg ccgcttatcc taacttttgt 660  
 tcatttatgg aaggccaaga gcaagttctc tgttcccggtg tctgcgcaa gagactacac 720  
 catggcaaca gctgaagatg gtgttgccga cctcccgata tacgatctgg atccgaagt 780  
 tgccggcttc aaggaacact tcagttatag gatgaaaaag taccttgacc agaaacattc 840  
 gattgagaag cagcagggag gcctgaaga gttctctaaa ggtagcttt tgtttcatgt 900  
 gtttgaaaca atagttacat cttgtggcgt ccgcagcaca aaagacataa tgcgactctg 960  
 tttgttaggc tatttgaagt ttgggatcaa cacagaaaat gacgcaactg tgtaccggga 1020  
 atgggcccc gacgaatgt aagttctagt gttgtcacgc aactaattgc aatggctcgt 1080  
 ggtaactta tgaagtgtg atgaaactgt ctttaagagt tatggcttgt cttttctgat 1140  
 tctagctagt aaagagtaga taaatatgaa atatgttttc cttttctag ttatggtcat 1200  
 ggtagctgg tattcatttc ttttatggca atacttgctt ctaactatct ttagtagatt 1260  
 catgtattta cttgtgagtc attactttat ggggttaggg atgcacaact tattggtgac 1320  
 ttcaacaact ggaatggctc tgggcacagg atgacaaaagg ataattatgg tgtttggtca 1380  
 atcaggattt cccatgtcaa tgggaaacct gccatcccc ataattccaa ggtaaaattt 1440  
 cgatttcacc gtggagatgg actatgggtc gatcgggttc ctgcatggat tcgttatgca 1500  
 acttttgatg cctctaaatt tggagctcca tatgacggtg ttcactggga tccaccttct 1560  
 ggtgaaagg ctacttttag tggctcgaga gcaagaaatc taagtaaaac ccacacaatt 1620  
 aacttacatt aatgtggaga catgatactt ttattgctcg ttttgcagg atgtgtttaa 1680  
 gcatcctcgg cctcgaaagc ctgacgctcc acgtatttac gaggtcatg tggggatgag 1740  
 tgggtaaaag cctgaagtaa gcacatacag agaatttgca gacaatgtgt taccgcgcac 1800  
 aaaggcaaac aactacaaca cagttcagct gatggcaatc atggaacatt catattatgc 1860  
 ttcttttggg taccatgtga cgaatttctt cgagtttagc agcagatcag aacgccagag 1920  
 acctcaatat cttgttgaca aggcacatag tttacgggtg cgtgttctga tggatgttgt 1980  
 ccatagccat gcgagcagta ataagacaga tggctttaat ggctatgat ttgggcaaaa 2040  
 cacacaggag tcctatttcc acacaggaga aaggggctat cataaactgt gggatagccg 2100  
 cctgttcaac tatgccaatt gggagtctta cgatttcttc tttctaact gagatattgg 2160  
 atggacgaat tcatgtttga tggcttccga tttgatggg taacatccat gctatataat 2220  
 caccatggta tcaatatgtc attcgctgga agttacaagg aatatttttg tttggatact 2280  
 gatgtagatg cagttgttta cctgatgctt gcgaaccatt taatgcacaa actcttgcca 2340  
 gaagcaactg ttgttgacga agatgtttca ggcattgccag tgctttgtcg gtcagttgat 2400  
 gaaggtggag tagggtttga ctatcgctg cctatggcta ttctgatag atggatcgac 2460  
 tacttgaaga acaagatga ccttgaatgg tcaatgagtg gaatagcaca tactctgacc 2520  
 aacaggagat atacggaaaa gtgcattgca tatgctgaga gccatgatca ggtatgtttt 2580  
 ccctcctttg tcgctgtgcg tgagtatgtg ttcttttttt atggggcaact ggtctaagaa 2640  
 catacagttc aaaggtgaga cactttcttt gcctggtaga caaatttgag aaataaacat 2700  
 ttcgcttgat gacttttagt tgcttcacaa gttcgaatta agttagttat attctgataa 2760  
 ctagttagat taccactaa ccagctatta cggacatgt aagaatgtcc gaagactgca 2820  
 gttatatatc gttgactttg tgttcatcta ttgaaacaac ttagtagtta actttcacgc 2880  
 aaattttcag tctattgttg gcgacaagac tatggcattt ctcttgatgg acaaggaaat 2940  
 gtatactggc atgtcagact tgcagcctgc ttcgcctaca attgatcgtg gaattgcact 3000  
 tcaaaagggt cgattcgttt taagtattcc tgaatttgat gttctagttc cagacgagta 3060



ttgtaatgtt	cgttgttact	cagagttctg	cttagtcctt	gaagataatg	tattccagtc	3120
ccttttggta	catttggcct	attttgttac	aaatatttca	gatgattcac	ttcatcacca	3180
tggcccttgg	aggtgatggc	tacttgaatt	ttatgggtaa	tgaggtaata	tctgggtatc	3240
tgtcaaaaact	tatttctgat	caatatgttt	cgggattccc	tcgaaaaaaa	tcctttgggc	3300
agggcgaaaa	gtttaaacat	ctgttttcta	tgatagccaa	gtactcccca	gctatttcca	3360
tgttatcacg	tatcatttag	ctgtgccggt	agttaatctt	tattctaatt	cattgttgtt	3420
ttttagcgtg	gcagtctatt	gttggatcct	cttattccaa	ttacatatat	gccgacatca	3480
cacacttatg	aatattccct	gtttaaaaga	tttttatttt	ataccaatgt	ttctccgtaa	3540
atgatgcaaa	catgatagag	atgttagcat	gtctttctta	acctactcat	gttttacata	3600
tcacgacaag	cttcttgag	aaaatcagca	gtatatggca	aattgctgca	acctgacata	3660
gtttatatct	gttttctaac	tcatactgac	ggtgcaattt	ccttttagtt	tggccacca	3720
gaatggattg	actttccaga	agaaggcaac	aactggagtt	atgataaatg	cagacgccag	3780
tggagcctcg	cagacattga	tcacctacga	tacaagggtta	tgcctatgta	tatttttaca	3840
gtttctggtc	tggtagctct	cttgggatct	tgacctcact	tagttccttc	atctctgact	3900
gtagcttatt	tacactgtgt	tccaaacttct	gtcttgtgga	taaattctcc	cttctaactg	3960
ttcatattaa	gcctttcaaa	ctaaactaaa	ttgctgatct	actactagtt	gctcagtagc	4020
atgacaaaat	cttgccctgtg	gtaacctagt	aattttcttg	attcttacac	attagtata	4080
tgcagtgcac	acattatcca	tataaattga	cattgcaatt	tcccaaatat	tatttgaagg	4140
ctgtgttctt	ttgttaacag	gaagtatttt	tctctgcac	tgataaataa	taatagcctt	4200
tcacgatttt	tctcatattt	tatccaaactt	ttctgcattc	aagcattttt	tgtttctcgc	4260
ctaacatata	taatttgaac	agtacatgaa	cgcattttgat	caagcaatga	atgcgcctga	4320
cgacaaaattt	tccttctctat	catcatcaaa	gcagattgtc	agcgacatga	atgaggaaaa	4380
gaagtagtta	actatacaat	gtttagttag	ggcagctggt	gcacattttg	attcactcct	4440
actcttaaga	atagcaactc	tgacttgtgc	gttttattgt	accaaataag	ttgaaaccgt	4500
atctgtttga	tatgaacat	tggtgtctca	aaatgggcta	tggactcaat	ccaacttctt	4560
ttccagatta	ttgtatttga	acgtggaatc	tggtcttcgt	cttcaatttt	catcccagta	4620
aaacttatga	tgggtaactg	atctcttgca	agctttgcct	ttcaatattt	cttctgctta	4680
atgactaatg	tgcttaatct	cgtttccact	tttaaaacac	gcagttacaa	agtcggatgt	4740
gacttgcttg	ggaagtacaa	ggtagctctg	gactctgatg	ctctgatggt	tggtagacat	4800
ggaagagtta	aagatgttaa	tgatgttcaa	gatctgtttt	gcaacactat	gttcttctat	4860
agaagggggc	atcaaggctg	catcagataa	tcttatttgc	agtgttgatc	tgtgctgcat	4920
cgcaggtggc	ccatgacaac	gatcacttta	cgtcacctga	aggagtacca	ggagtacctg	4980
aaacaaactt	caacaaccgc	cctaactcat	tcaaaatcct	gtctccatcc	cgcacttgtg	5040
tggtaatgct	aattactagg	aggatttagt	aacaataaat	aaataacagc	aaaagatatc	5100
tgcagtacga	tctcacaaaa	tgctctcttg	ccaggcttac	tatcgctcgc	aggagaaagc	5160
ggaaaagccc	aaggatgaag	gagctgcttt	cttgggggaa	actgctctcg	ggtacatcga	5220
tggtgaagcc	actggcgtca	aagacgcagc	agatggtgag	gcgacttctg	gttccgaaaa	5280
ggcgtctaca	ggaggtgact	ccagcaagaa	gggaattaac	tttgtctttc	tgtcaccgca	5340
caaagacaac	aaataagcac	catatcaacg	cttgatcagg	accgtgtgcc	gacgtccttg	5400
taatactcct	gctattgcta	gtagttagcaa	tactgtcaaa	ctgtgcagac	ttgaaattct	5460
ggcttgagct	ttgctgaggt	tacctactat	atagaaagat	aaataagcgg	tgatggtgag	5520
ggtcgagtc	agctatatgt	gccaaatatg	cgccatccc	agtcctctgt	cataaagaaa	5580
gtttcgggct	tccatcccag	aataaaaaaca	gttgtctgtt	tgcattttct	ttttgtcttg	5640
catagttaca	tgataattga	tgcatattgc	tataagcctg	gattgcatct	tcttttgcta	5700
ataactgcag	ggccaagaaa	gcctagattg	tatctttttt	tgctaataac	tgcagtgtctg	5760
gggaagcttc	agtccttgtt	tccgttctcg	agacaaggcg	tcatgtttgg	cgcacaaagg	5820
taagccatca	tcttatcaag	tcccaaaatt	ctctggttga	aagaaaccat	cactaacttg	5880
ttccaggtgt	tggttcctcc	acaaccaaaa	ggcgaccatc	gtcgatcatc	tcgctcacag	5940
cactgaccat	cgaagccacg	gtgggcatga	aatgcgcac	gccaagact	tgggaccgtt	6000
tcaaaatatc	acaaactgcc	atggcatctt	ctgcaaaagg	ctgcactgca	cctttggcat	6060
gaacagaagc	aacaggggct	tggaaactgaa	cgcggaaaat	aaagtcaaac	cggctggggc	6120
ggattgaaag	gggaaacgcc	aaaatccact	taatttgaat	ggaaggagga	atggttcttg	6180
ctggtttcaa	ctctgcaggc	ttccctctga	atttcacacg	gagccatt		6228

<210> 10  
 <211> 11463  
 <212> DNA

<213> *Triticum tauschii*

&lt;400&gt; 10

```

agaaacacct ccatttttaga tttttttttt gttctttttcg gacggtgggt cgtggagaga 60
ttagcgcteta gttttcttaa aagaacaggc catttaggcc ctgctttaca aaaggctcaa 120
ccagtcacaaa acgtctgcta ggatcaccag ctgcaaagtt aagcgcgaga ccacacaaaac 180
aggcgcatte gaactggaca gacgctcacg caggagccca gcaccacagg cttgagcctg 240
acagcggacg tgagtgcgtg acacatgggg tcatctatgg gcgtcggagc aaggaagaga 300
gacgcacatg aacaccatga tgatgctatc aggcctgatg gagggagcaa ccatgcacct 360
tttccctctt ggaaattcat agctcacact tttttttaat ggaagcaaga gttggcaaac 420
acatgcattt tcaaacaagg aaaattaatt ctcaaaccac catgacatgc aattctcaaa 480
ccatgcaccg acgagtccat gcgaggtgga aacgaagaac tgaaaatcaa catcccagtt 540
gtcagtgctga gaagaggatg aactgaaaag tatgcgtatt acgatttcat ttacatacat 600
gtacaaaatac ataattgtacc ctacaattttg ttttttggag cagagtgggtg tggctctttt 660
tttttacacg aaaatgccat agctggcccc catgcgtgca gatcggatga tcggctcggag 720
acgacggaca atcagacact caccaactga ttttgcctgg gacacaataa atgtttttgt 780
aaacaaaata aatacttata aacgagggta cttagggcgg ctaacggcat ggccaggtaa 840
acgcgtctcc agccgttggg ttgcgatctc gtcctcccg cgcgcacgaa gggaggaaga acgaacgccg 900
tccgtccgtc gctgccacct ctgctgtgcg cgcgcacgaa gggaggaaga acgaacgccg 960
cacacacact cacacacggc aactccccg tgggtcccc ttcgggcttg gcgtctatct 1020
cctctcccc gcccatcccc atgcactgca ccgtaaccgc cagcttccac ccccgccgca 1080
cacgtttgct ccccttctca tcgcttctca ataatatct ccatcactcg ggttccgcgc 1140
tgcattttcg cggcggggtt gagtgcgact tgggcgactg gctgactcaa tcactacgcg 1200
gggatggcga cgttcgcggg gtccggcgcg actctcggtg tggcgcgggc cggcgctcga 1260
gtggcgcggg ccggctcggg gcggaggggc gggcgggact tgccgtcgct gctcctcagg 1320
aagaaggact cctctcgta cgcctcgctc ctogaatctc ccccgcttg ctttggtctc 1380
cctctctct cctctgcgcg cgcattggct gttcgatgct gttccccaat tgatctccat 1440
gagtgcgaga gatagctgga ttaggcgatc gcgttctctg aacctgtatt ttttccccg 1500
cggggaatg cgtagtgct acccaggccc tgggtttacc acggttttga tcattcctcg 1560
tttcattctg atatatattt tctcattctt tttcttctg ttcttgcgtg aactgcaagt 1620
tgtggcggtt tttcactatt gtagtcatcc ttgcattttg caggcgccgt cctgagccgc 1680
gcggcctct cagggaaggt cctggtgcct gacggcgaga ggacgacttg gcaagtcagg 1740
cgcaacctga agaattacag gtacacacac tcgtgcgggt aaatcttcat acaatcgtaa 1800
ttcattacc aaatgccgga tgaaaccaac cagggatgcg tcaggtttgc agcttcttct 1860
atcagcattg tgcatgactg cactgccttg ttcattttgt tagccttggc cccgtgctgg 1920
ctcttggggc actgaaaaaa tcagatggat gtgcattcta gcaagaactt cacaacataa 1980
tgcaccgttt ggggtttcgt cagtctgctc tacaattgct atttttcgtg ctgtagatac 2040
ctgaagatat cgaggatgcaa acggcggaag tgaacatgac aggggggact gcagagaaac 2100
ttcaatcttc agaaccgact cagggcattg tggaaacaat cactgatggt gtaaccaaag 2160
gagttaagga actagtcgtg ggggagaaac cgcgagttgt cccaaaacca ggagatgggc 2220
agaaaatata cgagattgac ccaacactga aagattttcg gagccatctt gactaccggg 2280
aatgcctacc cgctgctttc gctcattttg aattaaggtc ctttcatcat gcaaatttgg 2340
ggaacatcaa agagacaaag actagggacc accatttcat acagatccct tcgtggctcg 2400
agaatatgct gggaagtaaa tgtataattg atggctacaa tttgctcaaa attgcaatac 2460
gaataactgt ctccgatcat tacaattaaa gagtggcaaa ctgatgaaaa tgtgggtgat 2520
gggttataga ttttactttg ctaattcctc taccaaattc ctagggggga aatctaccag 2580
ttgggaaact tagtttctta tctttgtggc ctttttggtt tggggaaaaac acattgctaa 2640
attcgaatga ttttgggtat acctcggtgg attcaacaga tacagcgaat acaagagaat 2700
tcgtgctgct attgaccaac atgaagggtg attggaagca ttttctcgtg gttatgaaaa 2760
gcttggattt acccgaggt aaatttaaag ctttattatt atgaaacgcc tccactagtc 2820
taattgcata tcttataaga aaatttataa ttctgtttt cccctctctt ttttccagt 2880
ctgaaggatg cgtctaattg catatcttat aagaaaattt atattcctgt tttccctat 2940
tttccagtgc tgaaggatc acttaccgag aatgggctcc ctggagcgca tgttatgttc 3000
ttttaagttc cttaacgaga caccttccaa tttattgtta atggctacta ttcaccaact 3060
agcttactgg acttacaat tagcttactg aatactgacc agttactata aatttatgat 3120
ctggcttttg caccctgtta cagtctgcag cattagtagg tgacttcaac aattggaatc 3180
caaatgcaga tactatgacc agagtatgtc tacagcttgg caattttcca ccttgcttc 3240
ataactactg atacatctat ttgtatttat ttagctgttt gcacattcct taaagttgag 3300

```

cctcaactac	atcatatcaa	aatgggtataa	tttgtcagtg	tcttaagctt	cagcccaaag	3360
atttactga	atttagtcca	tctttttgag	attgaaaatg	agtatattaa	ggatgaatga	3420
atacgtgcaa	cactcccac	tgcattatgt	gtgcttttcc	atctacaatg	agcatatttc	3480
catgctatca	gtgaagggtt	gctcctattg	atgcagatat	ttgatatggg	cttttcagga	3540
tgattatggg	gtttgggaga	ttttcctccc	taacaacgct	gatggatcct	cagctattcc	3600
tcattggctca	cgtgtaaagg	taagctggcc	aattatttag	tcgaggatgt	agcattttcg	3660
aactctgcct	actaagggtc	ccttttcctc	tctgtttttt	agatacggat	ggatactcca	3720
tccgggtgtga	aggattcaat	ttctgcttgg	atcaagttct	ctgtgcaggc	tccagggtga	3780
atacctttca	atggcatata	ttatgatcca	cctgaagagg	taagtatcga	tctacattac	3840
attattaaat	gaaattttcca	gtgttacagt	tttttaatac	ccacttctta	ctgacatgtg	3900
agtcaagaca	atacttttga	atttggaggt	gacatatgca	ttaatccacc	ttctaagggtc	3960
taaggggcaa	ccaaccttgg	tgatgtgtgt	atgcttgtgt	gtgacataag	atcttatagc	4020
tcttttatgt	gttctctgtt	ggtaggata	ttccattttg	gccttttgtg	accattttact	4080
aaggatattt	acatgcaaat	gcaggagaag	tatgtcttcc	aacatctcaa	ctaaacgacc	4140
agagtcacta	aggattttatg	aatcacacat	tggaaatgag	agcccgggtat	gtcaataagt	4200
tatttcacct	gtttctgggc	tgatgggtta	ttctatggat	tttctagtcc	tgttatgtac	4260
tgtaacata	ttacatgggtg	cattcacttg	acaacctcga	ttttattttc	taatgtcttc	4320
atattggcaa	gtgcaaaact	ttgttctctc	tttgtctgct	tgttcttttg	tcttctgtaa	4380
gatttccatt	gcatttggag	gcagtgaggc	tgtgaaagtc	atatctatct	tttttttgtc	4440
agagcatagt	tatatgaatt	ccattgttgt	tgcaatagct	cggatataatg	taaccatgtt	4500
actagcttaa	gatttcccac	ttaggatgta	agaaatattg	cattggagcg	tctccagcaa	4560
gccatttccct	acctatttaa	tgagagagag	acaaaggggg	gggggggggg	gggggttccct	4620
tcattattct	cgcagcgatt	caaaaacttc	cattgttctg	aggtgtacgt	actgcaggga	4680
tctcccatta	tgaagaggat	atagttaatt	ctttgtaacc	tacttggaag	cttgagtctt	4740
gaggcatcgc	taatataatc	tatcatcaca	atacttagag	gatgcactctg	aaatttttagt	4800
gtgatcttgc	acaggaaccg	aagataaatt	catatgctaa	ttttagggat	gagggtgttc	4860
caagaattaa	aaggcttggg	tacaatgcag	tcagataaat	ggcaatccag	gagcattcat	4920
actatgaag	ctttgggtat	tcacacaact	catttttttc	tgtatacact	cttcacccat	4980
ttggagctat	tacatcctaa	tgcttcctgc	acataaaata	tttggatata	atccttttatt	5040
agatatatag	tacaactaca	cttagtatct	tgaaaaagat	catttttattg	ttgttggctt	5100
gttccaggta	ccatgttact	aatttttttg	caccaagtag	ccgttttgga	actccagagg	5160
acttaaaatc	cttgatcgat	agagcacatg	agcttgggtt	gcttgttctt	atggatattg	5220
ttcataggta	attagtccaa	tttaatttta	gctgttttac	tgtttatctg	gtattctaaa	5280
gggaaattca	ggcaattatg	atacattgtc	aaaaagctaag	agtggcgaaa	gtgaaatgct	5340
aaaatctaga	gtggcataag	gaaaattggc	aaaaactaga	gtggcaaaaa	taaaattttc	5400
ccatcctaaa	tggcaggggc	ctatcgccga	atatttttcc	attctatata	attgtgctac	5460
gtgacttctt	ttttctcaga	tgtattaaac	cagttggaca	tgaaatgtat	ttggtacatg	5520
tagtaaaactg	acagttccat	agaatatcgt	tttgtaatgg	caacacaatt	tgatgccata	5580
gatgtggatt	gagaagttca	gatgctatca	atagaattaa	tcaactggcc	atgtactcgt	5640
ggcactacat	atagtttgca	agttggaaaa	ctgcagcaaa	tacctcactg	ataagtggcc	5700
aggccccact	tgccagcttc	atactagatg	ttacttccct	gttgaattca	tttgaacata	5760
ttacttaaaag	ttcttcattt	gtcctaagtc	aaacttcttt	aagtttgacc	aagtctattg	5820
gaaaatatat	caacatctac	aacaccaa	tactttgatc	agattaacaa	tttttatttt	5880
attatattag	cacatctttg	atgttgtaga	tatcagcaca	tttttctata	gacttgggtc	5940
aatatagaga	agtttgactt	aggacaaatc	tagaacttca	atcaatttgg	atcagaggga	6000
acatcaaata	atatagatag	atgtcaacac	ttcaacaaaa	aaatcagacc	ttgtcaccat	6060
atatgcatca	gaccatctgt	ttgcttttag	cacttgcttt	catattttatg	tgtttgtacc	6120
taatctactt	ttccttctac	ttggtttggg	tgattctatt	tcagttgcat	tgcttcatca	6180
atgattttgt	gtaccctgca	gtcattcgtc	aaataatacc	cttgacgggt	tgaatgggtt	6240
cgatggcact	gatacacatt	acttccacgg	tggtccacgc	ggccatcatt	ggatgtggga	6300
ttctcgtcta	ttcaactatg	ggagttggga	agtatgtagc	tctgacttct	gtcaccatat	6360
ttggctaact	gttctctgta	atctgttctt	acacatgttg	atattctatt	cttatgcagg	6420
tatttagatt	cttactgtca	aacgcgagat	gggtggcttg	agaatataag	tttgatggat	6480
ttcgatttga	tggttggtgac	tccatgatgt	atactcacca	tggtattacaa	gtaagtcac	6540
aagtgggttc	agtaactttt	ttagggcact	gaaacaattg	ctatgcatca	taacatgtat	6600
catgatcagg	acttgtgcta	cggagtctta	gatagttccc	tagtatgctt	gtacaatttt	6660
acctgatgag	atcatggaag	attggaagtg	attattattt	attttctttc	taagtttgtt	6720
tcttgttcta	gatgacattt	actgggaact	atggcgaaata	ttttggattt	gctactgatg	6780

ttgatgCGGT	agtttacttg	atgctggTca	acgatctaat	tcatggactt	tatcctgatg	6840
ctgtatccat	tggTgaagat	gtaagtGctt	acagtatttTa	tgattttttaa	ctagtTaaGt	6900
agttttattt	tggggatcag	tctgttacac	tttttgTtag	gggtaaaatc	tctcttttTca	6960
taacaatgct	aatttatacc	ttgtatgata	atgcatcact	tagtaatttg	aaaagtGcaa	7020
gggcattcaa	gcttacgagc	atattttttg	atggctgtaa	tttatttgat	agtatgcttg	7080
tttgggtttt	tcaataagtG	ggagtgtgtg	actaatgttg	tattatttat	ttaattgCGg	7140
aagaaatggg	caaccttgTc	aattgcttca	gaaggctaac	tttgattcca	taaacgcttt	7200
ggaaatgaga	ggctattccc	aaggacatga	attatacttc	agtgtgttct	gtacatgtat	7260
ttgtaatagt	ggtttaactt	aaattcctgc	actgctatgg	aatctcactg	tatgttgtag	7320
tgtacacatc	cacaaacaag	taatcctgag	ctttcaactc	atgagaaaat	agagtccgct	7380
tctgccagca	ttaactgttc	acagttctaa	tttgtgtaac	tgtgaaattg	ttcaggTcag	7440
tggaatgcct	acatttttgca	tcctgttcc	agatggTggT	gttgggtttg	actaccgcct	7500
gcatatggct	gtagcagata	aatggattga	actcctcaag	taagtgcagg	aatattggTg	7560
attacatgcg	cacaatgatc	tagattacat	tttctaaatg	gtaaaaagga	aaatatgtat	7620
gtgaatatct	agacatttgc	ctgttatcag	cttgaatacg	agaagtcaaa	tacatgattt	7680
aaatagcaaa	tctcggaat	gtaatggcta	gtgtctttat	gctgggcagt	gtacattgCg	7740
ctgtagcagg	ccagtcaaca	cagttagcaa	tattttcaga	aacaatatta	tttatatccg	7800
tatatgagaa	agttagtata	taaactgtgg	tcattaattg	tgttcacctt	ttgtcctgtt	7860
taaggatggg	cagtaggtaa	taaatttagc	cagataaaaat	aaatcgttat	taggtttaca	7920
aaaggaatat	acagggtcat	gtagcatatc	tagttgtaat	taatgaaaag	gctgacaaaa	7980
ggctcggtaa	aaaaaacttt	atgatgatcc	agatagatat	gcaggaacgc	gactaaagct	8040
caaatactta	ttgctactac	acagctgcca	atctgtcatg	atctgtgttc	tgctttgtgc	8100
tatttagatt	taaatactaa	ctcgatacat	tggcaataat	aaacttaact	attcaaccaa	8160
tttggTggat	accagaattt	ctgccctctt	gttagtaatg	atgtgctccc	tgctgctgtt	8220
ctctgccgtt	acaaaagctg	ttttcagttt	tttgcatcat	tattttttgtg	tgtgagtagt	8280
ttaagcatgt	tttttgaagc	tgtgagctgt	tggTacttaa	tacattcttg	gaagtgtcca	8340
aatatgctgc	agtgtaaatt	agcatttctt	taacacaggc	aaagtgcaga	atcttggaat	8400
atgggcgata	ttgtgcacac	cctaacaaaat	agaaggTggc	ttgagaagtG	tgtaaacttat	8460
gcagaaagtc	actagtTggT	gacaagacta	ttgcattctg	gttgatggat	gattatggat	8520
aaggTactag	ctgttacttt	tggacaaaag	aattactccc	tcccgTtccT	aaatataagt	8580
ctttgtagag	attccactat	ggaccacata	gtatatagat	gcatttttaga	gtgtagattc	8640
actcattttg	cttcgtatgt	agtccatagt	gaaatctcta	cagagactta	tatttaggaa	8700
cggagggagt	acataattga	tttgtctcat	cagattgcta	gtgttttctt	gtgataaaga	8760
ttggctgcct	caccatcac	cagctatttc	ccaactgtta	cttgagcaga	atttgctgaa	8820
aacgtaccat	gtggTactgt	ggcggcttgt	gaactttgac	agttatgttg	caattttctg	8880
ttcttattta	tttgattgct	tatgttaccg	ttcatttgct	cattcctttc	cgagaccagc	8940
caaagtcaag	tgttagctgt	gtgatctgtt	atctgaatct	tgagcaaatt	ttattaatag	9000
gctaaaatcc	aacgaattat	ttgcttgaat	ttaaatatac	agacgtatag	tcacctggct	9060
ctttcttaga	tgattaccat	agtgcctgaa	ggctgaaata	gttttggtgt	ttcttggtatg	9120
cgcctaaaag	gagtgatttt	tattggatag	attcctggcc	gagtcttcgt	tacaacataa	9180
cattttggag	atatgcttag	taacagctct	gggaagtttg	gtcacaagtc	tgcattctaca	9240
cgtccttga	ggttttatta	tggcgccatc	tttgtaaacta	gtggcacctg	taaggaaaca	9300
cattcaaaaag	gaaacggTca	catcattcta	atcaggacca	ccatactaag	agcaagattc	9360
tgttccaatt	ttatgagttt	ttgggactcc	aaagggaaca	aaagtgtctc	atattgtgct	9420
tataactaca	gttgTTTTta	taccagtgtA	gttttattcc	aggacagttg	atacttggtA	9480
ctgtgctgta	aattattttat	ccgacataga	acagcatgaa	catatcaagc	tctctttgtg	9540
caggatatgt	atgatttcat	ggctctggat	aggcttcaac	tcttcgcatt	gatcgtggca	9600
tagcattaca	taaaatgatc	aggcttgTca	ccatgggttt	aggtggTgaa	ggctatctta	9660
acttcatggg	aaatgagttt	gggcatcctg	gtcagTcttt	acaacattat	tgcattctgc	9720
atgattgtga	tttactgtaa	tttgaaccat	gcttttcttt	cacattgtat	gtattatgta	9780
atctgttgct	tccaaggagg	aagtTaaactt	ctattttactt	ggcagaatgg	atagattttc	9840
caagaggccc	acaaactctt	ccaaccggca	aggttctccc	ctggaaataa	caatagttat	9900
gataaatgcc	gccgtagatt	tgatcttgta	agtttttagct	gtgctattac	attcctcac	9960
tagatcttta	tggccattt	atttcttgat	gaaatcataa	tgtttgttag	gaaagatcaa	10020
cattgctttt	gtagttttgt	agacgtTaaac	ataagtatgt	gttgagagtt	gttgatcatt	10080
aaaaatatca	tgattttttg	caggagatg	cagattttct	tagatatcgt	ggtagcaag	10140
agttcgatca	ggcaatgcag	catcttgagg	aaaaatatgg	ggtatgtcac	tggtttgtct	10200
ttgttgcata	acaagtcaca	gtttaacgTc	agtctcttca	agtggtaaaa	aaagtgtaga	10260

attaattcct	gtaatgagat	gaaaactgtg	caaaggcgga	gctggaattg	cttttcacca	10320
aaactatttt	cttaagtgt	tgtgtattga	tacatatacc	agcactgaca	atgtaactgc	10380
agtttatgac	atctgagcac	cagtatgttt	cacggaaaca	tgaggaagat	aaggatgatca	10440
tcctcaaaag	aggagatttg	gtatttgttt	tcaacttcca	ctggagcaat	agcttttttg	10500
actaccgtgt	tgggtgttcc	aagcctggga	agtacaaggt	atgcttgcc	tttcattgtc	10560
cacccttcac	cagtaggggt	agtgggggct	tctacaactt	ttaattccac	atggatagag	10620
tttggtgggc	gtgcagctat	caatataaag	aatagggtaa	tttgtaaaga	aaagaatttg	10680
ctcgagctgt	tgtagccata	ggaagggtgt	tcttaacagc	cccgaagcac	ataccattca	10740
ttcatattat	ctacttaagt	gtttgtttca	atctttatgc	tcagttggac	tcggtcta	10800
actagaacta	ttttccgaat	ctaccctaac	catcctagca	gttttagagc	agccccattt	10860
ggacaattgg	ctgggttttt	gttagttgtg	acagtttctg	ctatttctta	atcaggtggc	10920
cttggaactc	gacgatgcac	tctttgggtg	attcagcagg	cttgatcatg	atgtcgacta	10980
cttcacaacc	gtaagtctgg	gctcaagcgt	cacttgactc	gtcttgactc	aactgcttac	11040
aaatctgaat	caacttccca	attgctgatg	cccttgagg	aacatccgca	tgacaacagg	11100
ccgcgtctt	tctcggtgta	cactccgagc	agaactgcgg	tcgtgtatgc	ccttacagag	11160
taagaaccag	cagcggcttg	ttacaaggca	aagagagaac	tcagagagc	tcgtggatcg	11220
tgagcgaagc	gacgggcaac	ggcgcgaggc	tgctccaagc	gccatgactg	ggaggggatc	11280
gtgcctcttc	cccagatgcc	aggaggagca	gatggatagg	tagcttggtg	gtgagcgctc	11340
gaaagaaaat	ggacgggcct	gggtgtttgt	tgtgctgcac	tgaacctcc	tcctatcttg	11400
cacattcccg	gttggttttg	tacatataac	taataattgc	ccgtgcgctc	aacgtgaaaa	11460
tcc						11463

&lt;210&gt; 11

&lt;211&gt; 2662

&lt;212&gt; DNA

<213> *Triticum tauschii*

&lt;400&gt; 11

tctcccactc	ttctctcccc	gcgcacaccg	agtcggcacc	ggctcatcac	ccatcacctc	60
ggcctcggcc	accggcaaac	cccccgatcc	gcttttgcag	gcagcgcact	aaaaccccg	120
ggagcgcgcc	ccgcggcagc	agcagcaccg	cagtgggaga	gagaggcttc	gccccggccc	180
gcaccgagcg	gggcgatcca	ccgtccgtgc	gtccgcacct	cctccgcctc	ctccccgtgc	240
ccgcgcgcgc	acacccatgg	cggcgacggg	cgtcggcgcc	gggtgcctcg	ccccagcgt	300
ccgcctgcgc	gccgatccgg	cgacggcgcc	ccgggcgtcc	gcctgcgtcg	tccgcgcgcg	360
gctccggcgc	ttggcgcggg	gccgctacgt	tgccgagctc	agcagggagg	gccccgcggc	420
gcgcgccgcg	cagcagcagc	aactggcccc	gccgctcgtg	ccaggcttcc	tcgcgcgcgc	480
gccgcgccgc	cccgcgccgt	cgccggcccc	gacgcagccg	cccctgccgg	acgcggcggt	540
gggggaaactc	gcgcgccgacc	tcctgctcga	agggattgct	gaggattcca	tcgacagcat	600
aattgtggct	gcaagtgagc	aggattctga	gatcatggat	gcgaatgagc	aacctcaagc	660
taaagttaca	cgtagcatcg	tgtttgtgac	tggtgaagct	gctccttatg	caaagtcagg	720
ggggctggga	gatgtttgtg	gttcgttacc	aattgctctt	gctgctcgtg	gtcaccgtgt	780
gatggttgta	atgccaaagt	acttgaatgg	gtcctctgat	aaaaactatg	caaaggcatt	840
atacactggg	aagcacatta	agattccatg	ctttggggga	tcacatgaag	tgaccttttt	900
tcattgagtat	agagacaacg	tcgattgggt	gtttgtcgat	catccgtcat	atcatagacc	960
aggaagttaa	tatggagata	attttggtgc	ttttggtgat	aatcagttca	gatacacact	1020
cctttgctat	gctgcatgcg	aggcccaact	aatccttgaa	ttgggaggat	atatttatgg	1080
acagaattgc	atgtttgttg	tgaacgattg	gcatgccagc	cttgtgccag	tccttcttgc	1140
tgcaaaatat	agaccatacg	gtgtttacag	agattcccgc	agcacccttg	ttatacataa	1200
tttagcacat	cagggctctg	agcctgcaag	tacatatcct	gatctgggat	tgccacctga	1260
atggtatgga	gctttagaat	gggtatttcc	agaatgggca	aggaggcatg	cccttgacaa	1320
gggtgaggga	gttaactttt	tgaaggagc	agtcgtgaca	gcagatcgaa	ttgtgaccgt	1380
cagtcagggt	tattcatggg	aggtcacaac	tgctgaagg	ggacagggcc	tcaatgagct	1440
cttaagctcc	cgaaaaagt	tattgaatgg	aattgtaaat	ggaattgaca	ttaatgattg	1500
gaacccacc	acagacaagt	gtctccctca	tcattattct	gtcgatgacc	tctctggaaa	1560
ggccaaatgt	aaagctgaat	tgcagaagga	gctgggttta	cctgtaagg	aggatgttcc	1620
tctgattggc	tttattggaa	gactggatta	ccagaaaggc	attgatctca	ttaaaatggc	1680
cattccagag	ctcatgagg	aggacgtgca	gtttgtcatg	cttgatctg	gggatccaat	1740

```

ttttgaaggc tggatgagat ctaccgagtc gagttacaag gataaattcc gtggatgggt 1800
tggatttagt gttccagttt cccacagaat aactgcaggt tgcgatatat tggtaatgcc 1860
atccagggtt gaaccttgtg gtcttaatca gctatatgct atgcaatatg gtacagttcc 1920
tgtagttcat ggaactgggg gcctccgaga cacagtcgag accttcaacc cttttggtgc 1980
aaaaggagag gaggttacag ggtgggctt ctcaccgcta accgtggaca agatgttgtg 2040
ggcattgcca accgcgatgt cgacattcag ggagcacaag ccgtcctggg aggggctcat 2100
gaagcgaggc atgacgaaag accatacgtg ggaccatgcc gccgagcagt acgagcagat 2160
cttcgaatgg gccttcgtgg accaacccta cgtcatgtag acggggactg gggaggtcga 2220
agcgcgggtc tccttgagct ctgaagacat gttcctcatc cttccgcggc ccggaaggat 2280
accctgttac attgcgttgt cctgctacag tagagtcgca atgcgcctgc ttgcttggtc 2340
cgccggttcg agagtagatg acggctgtgc tgctgcggcg gtgacagctt cgggtggatg 2400
acagttacag ttttggggaa taaggaaggg atgtgctgca ggatgggttaa cagcaaagca 2460
ccactcagat ggcagcctct ctgtccgtgt tacagctgaa atcagaaacc aactggtgac 2520
tctttagcct tagcgattgt gaagtttgtt gcattctgtg tatgttgtct tgtccttagc 2580
tgacaaatat tagacctgtt ggagaatttt atttatcttt gctgctgttg tttttgtttt 2640
gttaaaaaaa aaaaaaaaaa aa 2662

```

<210> 12

<211> 768

<212> PRT

<213> Triticum tauschii

<400> 12

Met Ala Thr Phe Ala Val Ser Gly Ala Thr Leu Gly Val Ala Arg Pro  
1 5 10 15

Pro Ala Ala Ala Gln Pro Glu Glu Leu Gln Ile Pro Glu Asp Ile Glu  
20 25 30

Glu Gln Thr Ala Glu Val Asn Met Thr Gly Gly Thr Ala Glu Lys Leu  
35 40 45

Glu Ser Ser Glu Pro Thr Gln Gly Ile Val Glu Thr Ile Thr Asp Gly  
50 55 60

Val Thr Lys Gly Val Lys Glu Leu Val Val Gly Glu Lys Pro Arg Val  
65 70 75 80

Val Pro Lys Pro Gly Asp Gly Gln Lys Ile Tyr Glu Ile Asp Pro Thr  
85 90 95

Leu Lys Asp Phe Arg Ser His Leu Asp Tyr Arg Tyr Ser Glu Tyr Arg  
100 105 110

Arg Ile Arg Ala Ala Ile Asp Gln His Glu Gly Gly Leu Glu Ala Phe  
115 120 125

Ser Arg Gly Tyr Glu Lys Leu Gly Phe Thr Arg Ser Ala Glu Gly Ile  
130 135 140

Thr Tyr Arg Glu Trp Ala Pro Gly Ala His Ser Ala Ala Leu Val Gly  
145 150 155 160

Asp Phe Asn Asn Trp Asn Pro Asn Ala Asp Thr Met Thr Arg Asp Asp  
165 170 175

Tyr	Gly	Val	Trp	Glu	Ile	Phe	Leu	Pro	Asn	Asn	Ala	Asp	Gly	Ser	Pro	180	185	190
Ala	Ile	Pro	His	Gly	Ser	Arg	Val	Lys	Ile	Arg	Met	Asp	Thr	Pro	Ser	195	200	205
Gly	Val	Lys	Asp	Ser	Ile	Ser	Ala	Trp	Ile	Lys	Phe	Ser	Val	Gln	Ala	210	215	220
Pro	Gly	Glu	Ile	Pro	Phe	Asn	Gly	Ile	Tyr	Tyr	Asp	Pro	Pro	Glu	Glu	225	230	235
Glu	Lys	Tyr	Val	Phe	Gln	His	Pro	Gln	Pro	Lys	Arg	Pro	Glu	Ser	Leu	245	250	255
Arg	Ile	Tyr	Glu	Ser	His	Ile	Gly	Met	Ser	Ser	Pro	Glu	Pro	Lys	Ile	260	265	270
Asn	Ser	Tyr	Ala	Asn	Phe	Arg	Asp	Glu	Val	Leu	Pro	Arg	Ile	Lys	Arg	275	280	285
Leu	Gly	Tyr	Asn	Ala	Val	Gln	Ile	Met	Ala	Ile	Gln	Glu	His	Ser	Tyr	290	295	300
Tyr	Ala	Ser	Phe	Gly	Tyr	His	Val	Thr	Asn	Phe	Phe	Ala	Pro	Ser	Ser	305	310	315
Arg	Phe	Gly	Thr	Pro	Glu	Asp	Leu	Lys	Ser	Leu	Ile	Asp	Arg	Ala	His	325	330	335
Glu	Leu	Gly	Leu	Leu	Val	Leu	Met	Asp	Ile	Val	His	Ser	His	Ser	Ser	340	345	350
Asn	Asn	Thr	Leu	Asp	Gly	Leu	Asn	Gly	Phe	Asp	Gly	Thr	Asp	Thr	His	355	360	365
Tyr	Phe	His	Gly	Gly	Pro	Arg	Gly	His	His	Trp	Met	Trp	Asp	Ser	Arg	370	375	380
Leu	Phe	Asn	Tyr	Gly	Ser	Trp	Glu	Val	Leu	Arg	Phe	Leu	Leu	Ser	Asn	385	390	395
Ala	Arg	Trp	Trp	Leu	Glu	Glu	Tyr	Lys	Phe	Asp	Gly	Phe	Arg	Phe	Asp	405	410	415
Gly	Val	Thr	Ser	Met	Met	Tyr	Thr	His	His	Gly	Leu	Gln	Met	Thr	Phe	420	425	430
Thr	Gly	Asn	Tyr	Gly	Glu	Tyr	Phe	Gly	Phe	Ala	Thr	Asp	Val	Asp	Ala	435	440	445
Val	Val	Tyr	Leu	Met	Leu	Val	Asn	Asp	Leu	Ile	His	Gly	Leu	His	Pro	450	455	460
Asp	Ala	Val	Ser	Ile	Gly	Glu	Asp	Val	Ser	Gly	Met	Pro	Thr	Phe	Cys	465	470	475
																		480

Ile Pro Val Pro Asp Gly Gly Val Gly Phe Asp Tyr Arg Leu His Met  
 485 490 495  
 Ala Val Ala Asp Lys Trp Ile Glu Leu Lys Gln Ser Asp Glu Ser  
 500 505 510  
 Trp Lys Met Gly Asp Ile Val His Thr Leu Thr Asn Arg Arg Trp Leu  
 515 520 525  
 Glu Lys Cys Val Thr Tyr Ala Glu Ser His Asp Gln Ala Leu Val Gly  
 530 535 540  
 Asp Lys Thr Ile Ala Phe Trp Leu Met Asp Lys Asp Met Tyr Asp Phe  
 545 550 555 560  
 Met Ala Leu Asp Arg Pro Ser Thr Pro Arg Ile Asp Arg Gly Ile Ala  
 565 570 575  
 Leu His Lys Met Ile Arg Leu Val Thr Met Gly Leu Gly Gly Glu Gly  
 580 585 590  
 Tyr Leu Asn Phe Met Gly Asn Glu Phe Gly His Pro Glu Trp Ile Asp  
 595 600 605  
 Phe Pro Arg Gly Pro Gln Thr Leu Pro Thr Gly Lys Val Leu Pro Gly  
 610 615 620  
 Asn Asn Asn Ser Tyr Asp Lys Cys Arg Arg Phe Asp Leu Gly Asp  
 625 630 635 640  
 Ala Asp Phe Leu Arg Tyr His Gly Met Gln Glu Phe Asp Gln Ala Met  
 645 650 655  
 Gln His Leu Glu Glu Lys Tyr Gly Phe Met Thr Ser Glu His Gln Tyr  
 660 665 670  
 Val Ser Arg Lys His Glu Glu Asp Lys Val Ile Ile Phe Glu Arg Gly  
 675 680 685  
 Asp Leu Val Phe Val Phe Asn Phe His Trp Ser Asn Ser Phe Phe Asp  
 690 695 700  
 Tyr Arg Val Gly Cys Ser Arg Pro Gly Lys Tyr Lys Val Ala Leu Asp  
 705 710 715 720  
 Ser Asp Asp Ala Leu Phe Gly Gly Phe Ser Arg Leu Asp His Asp Val  
 725 730 735  
 Asp Tyr Phe Thr Thr Glu His Pro His Asp Asn Arg Pro Arg Ser Phe  
 740 745 750  
 Ser Val Tyr Thr Pro Ser Arg Thr Ala Val Val Tyr Ala Leu Thr Glu  
 755 760 765

<210> 13  
 <211> 10337  
 <212> DNA



<213> *Triticum tauschii*

<220>

<221> modified\_base

<222> (10232)

<223> a, t, c, g, other or unknown

<400> 13

atggcgggcg	cgggcggtgc	ctcgccccca	gcgtccgcct	gcgcgccgat	60
ccggcgacgg	cgccccgggc	gtccgcttgc	gtcgtccgcg	cgcgcttggcg	120
cgggggccgct	acgtcgccga	gtcagcagg	gagggccccc	cggcgcgccc	180
cagcaactgg	ccccgcgct	cgtgccaggc	ttcctcgcgc	cgccgcgcgc	240
cagtcgccgg	ccccgacgca	gccgcccctg	ccggacgccg	gcgtggggga	300
gacctcctgc	tccaaggtaa	aaaacaaggc	tgaatcctca	gatcactccg	360
ttaccaaata	cggtactgcg	aagtgggtgc	gtatatgtga	agtttctgtc	420
tgacggatgt	tcagtcgatt	cagttgtata	tatgtgatac	gttcgttggt	480
acagattttac	cagcacacta	gatagaaatc	gagaccgacg	cgggcagatc	540
tctagacgtt	ttattggatc	gtgagatgat	tgattggggg	ggcgtgtcga	600
gtgcaccgcc	gatgtatcgg	ggcatgtgca	cgtgggtggg	tctcagcaga	660
gactgggtatc	gtaattttact	agtactactg	gaaagaggac	taaaaaggct	720
cacgcattgt	gggaacgttg	ttaaattgat	gagtttgtcc	tttgcttggg	780
tacccaaaaa	tggtgttagt	ccctgtactt	attaatggga	aaatcttaac	840
ggtttatgag	tctccaattg	tatatctca	gcactcaact	gattttactg	900
ggaaatgaca	cgtgagcacc	ccccttcaag	gaatgcaatg	cttctttctg	960
caggaactag	aaggagcttc	cacctttgag	tacagaagta	ctccctccgt	1020
atgactcaac	tttgtactaa	ttttgtacta	tagttagtag	aaagttgagt	1080
agaacggagg	gagtagtatc	gaaattgaag	acccttgtat	tactgtcttg	1140
aaaattgggag	gcccattgcag	taagtcacat	gggcacctgg	gaggctggga	1200
tttgacaggt	actagaccca	gctcaccctc	tgtagatta	cttggtgggc	1260
tgtttgcgtg	gcagtatatc	agacatcctg	aatttggcat	ctagctgaga	1320
ggttgcacca	ttcttattat	tgctaaactg	ttgtcacgca	atttataaag	1380
tctgagtatt	aattaatcat	gttctgctaa	tatctgtcct	cgctctgggt	1440
taccatatga	atattttcca	ttttgcaacc	agggatttgt	gaggattcca	1500
aatcgtgggt	gcaagtgagc	aggattctga	gatcatggat	gcgaatgagc	1560
taaagttaca	cgtagcatcg	tgtttgtgac	tggtgaagct	gctccttatg	1620
ggggctggga	gatgtttgtg	gttcgttacc	aattgtctct	gctgctcgtg	1680
gatggttgta	atgccaaagt	acttgaatgg	gtcctctgat	aaaaactatg	1740
atacactgcg	aagcacatta	agattccatg	ctttggggga	tcacatgaag	1800
tcattgagtag	agagacaacg	tcgattgggt	gggtacacaa	tcaccttctt	1860
gaattgtagc	aactgtttat	ccttgtttac	acttctttta	gccctgcaaa	1920
atttccatac	ttttttgtta	tttccttgtg	actcttgctc	atgaagggtc	1980
tatccatgga	agtcattgcat	gtgcctagta	tttttgggtg	cggtgccttt	2040
gattaatac	tggaatttga	taactaaagt	ttattttatt	gaaaaaaatt	2100
tgagcccaca	gccacgcagt	ggcaccactg	cttgacacatg	attttgcatt	2160
ccgagcactt	catgtgaata	aggtgtaaaa	tcataaaagta	ccaattttat	2220
gcacttaaga	gtatatacat	ttatcttggc	ctcaatcatg	ggagtactgt	2280
caccatcatt	gttctaaggga	gaaaatgtgg	gtgcaaggaa	gacacttttg	2340
aaaggcaggc	actctgttgt	catatagata	gaaagcaaca	aacttatttc	2400
caatggcaaa	agaacaaaaa	aaagcatgct	aaggcggtga	cacccaaaagg	2460
cttgtgactg	acagcacccc	aaactatttg	cattgtttta	ctaaatgaag	2520
aagctctcag	gaacttcgaa	aacagtgggt	ttccgtccac	agatcgtctg	2580
tgtccagtga	tacttttttt	gtcctttaca	agagtgccta	tggtgacata	2640
agttgtttcat	aagtttactt	cttattctaa	acagcaagtg	cctaattgctt	2700
tggtctattta	tttttattct	catttcaatc	aacacttttg	ttcaggtgtt	2760
ccgtcatatc	atagaccagg	aagtttatat	ggagataaatt	ttgggtgcttt	2820
caggtacact	acactatact	aagctcctag	ttgactaagt	cgtaagttgt	2880
tgaccggctg	ctctatgtcg	tgcagttcag	atacacactc	ctttgctatg	2940
ggccccacta	atccttgaat	tgggaggata	tatttatgga	cagaattgca	3000

gaacgattgg	catgccagcc	ttgtgccagt	gtacgttggt	tgtggatctg	aaagccaat	3060
cctttattca	ttctctgctt	tgcagtgtgc	ccatgtctac	atctctttta	tgcttttttc	3120
atgtctgttc	ttatattgca	tatatgctta	tggagtctaa	aagttaccgg	agggaataac	3180
tcttaaggat	ttcctcaatc	aattatcttt	agcttttagtt	aacatttact	gtggcaaaca	3240
taatgtgttt	tgagattttac	aagttcagag	attgcacttc	actagtctgt	agctaactctg	3300
atgttttccc	cgagaaaatg	cctaaagctt	tgtgtcttga	tgcatgtata	gaaaaagagt	3360
ttatgtacac	tcccaaagag	gggacccaaa	attacaacac	cacacccctg	agaactaggc	3420
gctgccggaa	gaagcgatgc	aagccccact	gcccctgcct	tagctcaaag	ccgggcgtca	3480
gcttgattgt	gtcaagtaag	ctagcagtgc	tagattgcgc	aaggctcgatt	cgtcgaagat	3540
gacagtgttg	cgctgcttcc	aaatccacca	aactatgagc	atgatcactg	gagaagtacc	3600
ttttctcgcg	gctgaggggg	tggactggtg	gtctgctgct	gccagttttc	agataactctg	3660
aaaaatgcat	gttttgatga	ttttagtatc	ttgcccggac	tggttaccac	ctaagctttc	3720
acacagtaat	ttgcagttac	acctataaaa	gtaacgggtca	tgatatgcat	gtgttttggg	3780
tagatcatgg	tgcatgcatt	ttaggaatta	ggacatgccca	gaaccacgtg	aggcttatgg	3840
ggcaattcat	ttgttccatt	atacagatca	tgaatatggg	tcagcatggt	tggacgctac	3900
ttgtttgggg	caatttcaga	tggatgaattg	tagctgcttg	atgttggcta	gctggcttat	3960
tttgtaacaag	tatcgatggt	agatgcataat	ttccttttgt	ttctgtgctg	tttgccatgt	4020
tgtattcccc	ttttctgtcg	ccagtgttgc	atgttaaatt	ggttttcatt	acataatcaa	4080
ctttgttgct	gacatcagtc	atttttattc	agccttcttg	ctgcaaaata	tagaccatac	4140
gggtgtttaca	gagattcccc	cagcaccctt	gttatacata	atcttagcaca	tcaggtttgg	4200
gtctatcacc	tttcattatc	cgtacatggc	tttgtaagtc	ggttcacacg	tatcgtcata	4260
ctgtatgtta	tttcaatgtc	attaggggtg	ggagcctgca	agtaacatc	ctgatctggg	4320
attgccacct	gaatggatg	gagctttaga	atgggtattt	ccagaatggg	caaggaggca	4380
tgcccttgac	aagggtgagg	cagttaactt	tttgaaagga	gcagttgtga	cagcagatcg	4440
aattgtgacc	gtcagtcagg	tgaaatactc	aatacttctc	ttttttcttt	gcgggatgtt	4500
cttcagttca	attgccctgt	ctttcaccca	attaagaaat	gatttaattct	tttgtttcta	4560
gggttattca	tgggaggtca	caactgctga	aggtggacag	ggcctcaatg	agctcttaag	4620
ctcccgaaaa	agtgtattga	atggtaacta	tatttgaatc	cacttatctt	cttctgaaac	4680
atatttacag	aaatagatgg	atgggttgca	agaataaatt	cagtttgctc	tttcggatg	4740
aaggaattgt	aaatggaatt	gacattaatg	attggaaccc	caccacagac	aagtgtctcc	4800
ctcatcatta	ttctgtcgat	gacctctctg	gaaagggtgtg	tggatagtag	cctatataat	4860
aacatgtata	tctgatctag	tactttcttt	ttctttgcta	gtttgcttcc	catgatgttc	4920
tactaacta	atcctatgtg	gtttggcata	cttgtcaggc	caaatgtaaa	gctgaattgc	4980
agaaggagct	gggtttacct	gtaagggagg	atgttctctc	ggttagatac	aaacccttaa	5040
gatatatatt	ttttaaatcc	ctaaaaaaa	cttgccgac	atctcattag	cttgattcac	5100
agattggctt	tattggaaga	ctggattacc	agaaaggcat	tgatctcatt	aaaatggcca	5160
ttccagagct	catgaggagg	gacgtgcagt	ttgtaagttc	atattctttt	tcttgagact	5220
agagtataaa	tcaaacatgt	aggtgtgggg	tggatataata	cagacataag	ttccagctat	5280
tgttcccatg	agaattttta	tgctattcag	taatatgcta	ctgcaagttt	tgaacaaaag	5340
ttggaagcaa	taaatatatg	tgtagcactg	accatgcagt	gccactatag	ctggaatgtc	5400
ctgtagtcta	tgtgatctaa	cacactcaac	aacatgtttt	cgcatacaaa	cacatgcgtg	5460
cgcgcaacaa	acatactcta	caataaaaat	ggcttggtga	actgcagaca	tgctcttatc	5520
tccattccaa	catttcttgt	ttcaacattg	gctgaagact	aagagaaggg	ggaccagggg	5580
tgatgtagcc	aactagatcc	agtaagggaag	ctagccgagc	ctaggaggat	tcgcttaggt	5640
agctggaacg	tagggtctct	gacaggggaag	cttcgggagc	tagtgcgatgc	agtggtgagg	5700
agagggtgtg	atatcctttg	cgtccaagaa	accaaagtga	ggggacagaa	ggcgaaggag	5760
gtggaggata	ccggcttcaa	gctgtgttac	atgggacggc	tgcaaacaga	aatggcgtag	5820
gcatcttgat	caacaagagc	cttaagtatg	gagtggtaga	cgtcaagaga	cgtggggacc	5880
ggattatcct	cgtcaagctg	gtagtggggg	acttagttct	caatgttatc	agcgtgtatg	5940
ccccgcaagt	aggccacaat	gagaacgcca	agagggagtt	ctgggaaggc	ctggaagaca	6000
tggttaggag	tgtaccgatt	ggcgagaagc	tcttcatagg	aggagacctc	aatggccacg	6060
tgggtacatc	taacataggt	tttgaagggg	cacatggggg	ctttggctat	ggcatcaaga	6120
atcaagaaga	agatgcttta	cgtttgtctc	tagcctacga	catgattgta	gctaaccacc	6180
tcttttagaaa	gagagaatca	catctggtga	cttttagtag	tggccaacac	tagccagatc	6240
gatttcatcc	tctcgagaag	agaagatagg	tgtgcgcgcc	tagactgcaa	ggtgatacct	6300
tcggattcgt	gtccagcggg	ataagcgtgc	caaagtcgct	agaatgaagt	ggtggaagct	6360
caagggggag	gtagctcagg	cgttcaaggga	gaggggtcatt	agggagggcc	cttggggagg	6420
aggaggggat	gcggacaatg	tgtggatgaa	gatggcgact	tgcatctgta	aggtggcctc	6480

ggaggagtgt	ggagtgtcca	ggggatggag	aagcgaagat	aaggataacct	ggtggtggaa	6540
tgatgatgtc	cagaaggcaa	ttaaagagaa	gaaagattgc	tttagacgcc	tatacttggg	6600
taggagtgca	gtcaacatag	aaaagtacaa	gatggcgaa	aaggccgcaa	agcgagctgt	6660
cagtgaagca	aggggtcggg	catatgagga	tctctaccaa	cggttaggca	cgaagggaagg	6720
cgaaagggac	atctataaga	tggccaagat	ccgagagaga	ggaagacgag	ggatattggc	6780
caagtcaa	gcatacagga	tggagcagac	caactcttgg	tgaaggacga	ggagattaag	6840
catagatggc	gggagtactt	cgacaagctg	ttcaatgggg	aggatgagag	tcctaccatt	6900
gaacttgacg	actcctttga	tgagaccatc	atgctgttta	tgcggcgaa	ccaggagtcc	6960
gaggtcaagg	aggcttttaa	aaggaggcaa	ggcgatgggc	cctgattgta	tccccattga	7020
ggtgtggaaa	ggcctcgggg	acatagcgat	agtatggcta	accaagctat	tcaacctcat	7080
ttttcgggca	aacaagatgc	cagaagaatg	gagacgaagt	atattagtag	caatcatcaa	7140
acagggggga	tgttcagagt	tgtactaatt	accatggaat	taagctgatg	agccatacaa	7200
tgaagctatg	ggagagaatc	attgagcacc	gcttaagaag	aatgacaagc	gtgacaaaaa	7260
atcagtttgg	tttcatgcct	gggaggtcga	ccatggaaac	cattttcttg	gtacgacaac	7320
ttatggagag	atacaggggag	caaaagaagg	acttgcata	ggtgttcatt	gacttgaaga	7380
aggcctataa	taagataccg	cggaatgtca	tgtggtgggc	cttgagaaa	cacaaagtcc	7440
cagcaaagta	cattaccctc	atcaaggaca	tgtacgataa	tgttgtgaca	agtgttcgaa	7500
caagtgatgt	cgacactaat	gacttcccga	ttaagatagg	actgcatcag	gggtcagctt	7560
tgagccctta	tctttttgcc	ttggtgatgg	atgaggtcac	aagggatata	caaggagata	7620
tcccatgggtg	tatgctcttt	gtggatgatt	tgggtgctagt	tgacgatagt	cgggcggggg	7680
taaataacaa	gttagagtta	tggagacaaa	ccttggaatc	gaaaggggtt	aggcttagta	7740
gaactaaaac	cgagtacatg	atgtgcggtt	tcagtactac	taggtgtgag	gaggaggagg	7800
ttagccttga	tgggcaggtg	gtaccccaga	aggacacctt	tcgatatttg	gggtcaatgc	7860
tgcaggagga	tgggggtatt	gatgaagatg	tgaaccatcg	aatcaaagct	ggatggatga	7920
agtggcgcca	agcttctggc	attctttgtg	acaagagagt	gccacaaaag	ctaaggcaag	7980
ttctacagga	cggcggttcg	acccgcaatg	ttgtatggcg	ctgagtgttg	gccgactaaa	8040
aggcgacatg	ttcaacagtt	agggtgtggcg	gagatgcgta	tgttgagatg	gatgtgtggc	8100
cacacgagga	agratcgagt	ccggaatgat	gataacgag	atagagttgg	ggtagcacca	8160
attgaagaga	agcttgtcca	acatcgtctg	agatgggttg	ggcatattca	gcgcacgctt	8220
ccgaaaactc	cagtgcataa	cggacggcta	aagcgtgcgg	agaatgtcaa	gagagggcgg	8280
ggtagaccga	atttgacatg	ggaggagtcc	gttaagagag	acctgaaggt	ttggagtatt	8340
acgaaagaac	tagctatgga	cargggtgcg	tgggaagctt	ttatccatgt	gccagagcca	8400
tgagttgatc	acgagatcct	atgggtttca	cctctagcct	accccaactt	gtttgggact	8460
aaaggctttg	ttgttgttgt	tgttgttgtt	gttgtagcca	actaaatcca	gttgatcagt	8520
ggtttttact	cttattttta	caggtcatgc	ttggatctgg	ggatccaatt	tttgaaggct	8580
ggatgagatc	taccgagtcg	agttacaagg	ataaattccg	tggatgggtt	ggatttagtg	8640
ttccagtttc	ccacagaata	actgcagggt	atgccgagaa	cttcttaaca	agaccttcgt	8700
tatcagcttg	gatataattat	aatgttcaaa	acatttatgt	ctctcttttt	gtgcagttgc	8760
gatataattgt	taatgccatc	caggtttgaa	ccttgtggtc	ttaatcagct	atatgctatg	8820
caatatggta	cagttcctgt	agttcatgga	actggggggc	tccgagtaag	acaactgcct	8880
tgaaaattat	cgttatcttg	gctccaacgc	aaatgttcta	attggctcgt	gtattcaaca	8940
ggacacagtc	gagaccttca	acccttttgg	tgcaaaagga	gaggagggtta	cagggtacgc	9000
actgctcaat	tttagctaac	tttcagttta	tctttttgca	atgtcttggg	ggttcattgc	9060
gccataaatc	aacttgtgat	aattaaactgt	tactgttctg	tacttgacag	tgggcgttct	9120
caccgctaac	cgtggacaag	atgttgtggg	taagtttttg	ctgagctctt	gtccggttat	9180
aggatcgacc	ttggctgtag	catggtacct	tagtgcacct	tgtatataga	cctaacctga	9240
tggactcact	ttgtctacac	taatcatagt	agtcagattg	cgggaggcgt	tttgcttggg	9300
ttctgcta	ttaattttca	tgacgataac	tcataccatg	gtttgggtct	ccgatggggg	9360
ccagaatggc	gtctagtgtc	tgcgatctgt	gtaactagcc	aatgccgggt	tgttccaagt	9420
gaaaattttac	cttttgacca	ttgtgcaggc	attgcgaacc	gcgatgtcga	cattcaggga	9480
gcacaagccg	tcctgggagg	ggctcatgaa	gcgaggcatg	acgaaagacc	atacgtggga	9540
ccatgccgcc	gagcagtacg	agcagatcct	cgaatggggc	ttcgtggacc	aaccctacgt	9600
catgtagacg	gggactgggg	aggtcgaagc	cggggtctcc	ttgagctctg	aagacatggt	9660
cctcatcctt	cgcgggcccg	gaaggatacc	cctgtacatt	gcgttgtcct	gctacagtag	9720
agtcgcaatg	cgctgtcttg	cttggtccgc	cggttcgaga	gtagatgacg	gctgtgctgc	9780
tgcggcggtg	acagcttcgg	gtggatgaca	gttacagttt	tggggaataa	ggaagggatg	9840
tgctgcagga	tggttaacag	caaagcacca	ctcagatggc	agcctctctg	tccgtgttac	9900
agctgaaatc	agaaaccaac	tggtgactct	ttagccttag	cgatttgtgaa	gtttgttgca	9960

```

ttctgtgtat gttgtcttgt ccttagctga caaatatttg acctgttgga taattctatc 10020
tttgctgctg tttttctttt ggtcaaaaga ggggttccct ccgatttcat taacgaaacc 10080
accaaaataa cagcaccagc tgcaggtctc aggttcagat atacttaaga ctactaaatc 10140
taacagcagc taaaaagctt aaagattcag gcgacataac cgaacaaaat ccacaaccga 10200
agggaccaaa gcaggacaag taaaaaggca gncgacacaa agcgcaggtc gctgaaaagg 10260
caagcagaca gaggtctgca ttctgtcaac accacttggtg aaaaatgaag agaagatcga 10320
gaattcccg   gaatccg                               10337

```

```

<210> 14
<211> 647
<212> PRT
<213> Triticum tauschii

```

```

<400> 14
Met Ala Ala Thr Gly Val Gly Ala Gly Cys Leu Ala Pro Ser Val Arg
 1             5             10             15

Leu Arg Ala Asp Pro Ala Thr Ala Ala Arg Ala Ser Ala Cys Val Val
          20             25             30

Arg Ala Arg Leu Arg Arg Leu Ala Arg Gly Arg Tyr Val Ala Glu Leu
          35             40             45

Ser Arg Glu Gly Pro Ala Ala Arg Pro Ala Gln Gln Gln Gln Leu Ala
          50             55             60

Pro Pro Leu Val Pro Gly Phe Leu Ala Pro Pro Pro Pro Ala Pro Ala
          65             70             75             80

Gln Ser Pro Ala Pro Thr Gln Pro Pro Leu Pro Asp Ala Gly Val Gly
          85             90             95

Glu Leu Ala Pro Asp Leu Leu Leu Glu Gly Ile Ala Glu Asp Ser Ile
          100            105            110

Asp Ser Ile Ile Val Ala Ala Ser Glu Gln Asp Ser Glu Ile Met Asp
          115            120            125

Ala Asn Glu Gln Pro Gln Ala Lys Val Thr Arg Ser Ile Val Phe Val
          130            135            140

Thr Gly Glu Ala Ala Pro Tyr Ala Lys Ser Gly Gly Leu Gly Asp Val
          145            150            155            160

Cys Gly Ser Leu Pro Ile Ala Leu Ala Ala Arg Gly His Arg Val Met
          165            170            175

Val Val Met Pro Arg Tyr Leu Asn Gly Ser Ser Asp Lys Asn Tyr Ala
          180            185            190

Lys Ala Leu Tyr Thr Gly Lys His Ile Lys Ile Pro Cys Phe Gly Gly
          195            200            205

Ser His Glu Val Thr Phe Phe His Glu Tyr Arg Asp Asn Val Asp Trp
          210            215            220

```

Val	Phe	Val	Asp	His	Pro	Ser	Tyr	His	Arg	Pro	Gly	Ser	Leu	Tyr	Gly	225	230	235	240
Asp	Asn	Phe	Gly	Ala	Phe	Gly	Asp	Asn	Gln	Phe	Arg	Tyr	Thr	Leu	Leu	245	250	255	
Cys	Tyr	Ala	Ala	Cys	Glu	Ala	Pro	Leu	Ile	Leu	Glu	Leu	Gly	Gly	Tyr	260	265	270	
Ile	Tyr	Gly	Gln	Asn	Cys	Met	Phe	Val	Val	Asn	Asp	Trp	His	Ala	Ser	275	280	285	
Leu	Val	Pro	Val	Leu	Leu	Ala	Ala	Lys	Tyr	Arg	Pro	Tyr	Gly	Val	Tyr	290	295	300	
Arg	Asp	Ser	Arg	Ser	Thr	Leu	Val	Ile	His	Asn	Leu	Ala	His	Gln	Gly	305	310	315	320
Leu	Glu	Pro	Ala	Ser	Thr	Tyr	Pro	Asp	Leu	Gly	Leu	Pro	Pro	Glu	Trp	325	330	335	
Tyr	Gly	Ala	Leu	Glu	Trp	Val	Phe	Pro	Glu	Trp	Ala	Arg	Arg	His	Ala	340	345	350	
Leu	Asp	Lys	Gly	Glu	Ala	Val	Asn	Phe	Leu	Lys	Gly	Ala	Val	Val	Thr	355	360	365	
Ala	Asp	Arg	Ile	Val	Thr	Val	Ser	Gln	Gly	Tyr	Ser	Trp	Glu	Val	Thr	370	375	380	
Thr	Ala	Glu	Gly	Gly	Gln	Gly	Leu	Asn	Glu	Leu	Leu	Ser	Ser	Arg	Lys	385	390	395	400
Ser	Val	Leu	Asn	Gly	Ile	Val	Asn	Gly	Ile	Asp	Ile	Asn	Asp	Trp	Asn	405	410	415	
Pro	Thr	Thr	Asp	Lys	Cys	Leu	Pro	His	His	Tyr	Ser	Val	Asp	Asp	Leu	420	425	430	
Ser	Gly	Lys	Ala	Lys	Cys	Lys	Ala	Glu	Leu	Gln	Lys	Glu	Leu	Gly	Leu	435	440	445	
Pro	Val	Arg	Glu	Asp	Val	Pro	Leu	Ile	Gly	Phe	Ile	Gly	Arg	Leu	Asp	450	455	460	
Tyr	Gln	Lys	Gly	Ile	Asp	Leu	Ile	Lys	Met	Ala	Ile	Pro	Glu	Leu	Met	465	470	475	480
Arg	Glu	Asp	Val	Gln	Phe	Val	Met	Leu	Gly	Ser	Gly	Asp	Pro	Ile	Phe	485	490	495	
Glu	Gly	Trp	Met	Arg	Ser	Thr	Glu	Ser	Ser	Tyr	Lys	Asp	Lys	Phe	Arg	500	505	510	
Gly	Trp	Val	Gly	Phe	Ser	Val	Pro	Val	Ser	His	Arg	Ile	Thr	Ala	Gly	515	520	525	

Cys Asp Ile Leu Leu Met Pro Ser Arg Phe Glu Pro Cys Gly Leu Asn  
530 535 540

Gln Leu Tyr Ala Met Gln Tyr Gly Thr Val Pro Val Val His Gly Thr  
545 550 555 560

Gly Gly Leu Arg Asp Thr Val Glu Thr Phe Asn Pro Phe Gly Ala Lys  
565 570 575

Gly Glu Glu Gly Thr Gly Trp Ala Phe Ser Pro Leu Thr Val Asp Lys  
580 585 590

Met Leu Trp Ala Leu Arg Thr Ala Met Ser Thr Phe Arg Glu His Lys  
595 600 605

Pro Ser Trp Glu Gly Leu Met Lys Arg Gly Met Thr Lys Asp His Thr  
610 615 620

Trp Asp His Ala Ala Glu Gln Tyr Glu Gln Ile Phe Glu Trp Ala Phe  
625 630 635 640

Val Asp Gln Pro Tyr Val Met  
645

<210> 15

<211> 5072

<212> DNA

<213> *Triticum tauschii*

<400> 15

tctagatgca	tgctggatag	cggtcgatgt	gtggagtaat	agtagtagat	gcagaatcgt	60
ttcgggtctac	ttgtcgcgga	cgtgatgcct	atatacatga	tcatacctag	atattctcat	120
aactatgctc	aattctatca	attgctcgac	agtaattcgt	ttaccaccg	taatacttat	180
gatcttgaga	gaagtcacta	gtgaaacct	tgccccccag	gtctattttg	catcatatta	240
atcttccaat	acttagttat	ttccattgcc	gtttatttta	ctttgtatct	ttatttcttt	300
ttattataaa	aaataccaaa	aatattatct	tatcatactc	atcagatctc	attctcgtaa	360
gtgaccgtga	agggattgac	aacccttta	tcgtgttgg	tgcgagggtc	ttggttgttt	420
gtgtaggtgc	gtgtgactcg	cacgtctcct	actggattga	taccttgggt	tttcaaaaac	480
tgagaaaaat	acttacgcta	ctttactgca	taaccctttc	ctctttaaaa	aaaaaaacca	540
acgtagtatt	caagaggtag	cacgctacca	tcctctccaa	caggagcgcg	gagatctttg	600
tccggcaggt	tgatgcgggc	cggggaagaa	ctccagctgc	cttggccagc	ttggtcgtga	660
gccgccccag	cggcgtcttg	aacctgtcca	cgtagcgctc	cctgacacgc	ggcgtgaact	720
gagaaggctt	gtcgatgaac	tccagctgtt	gtgccagcct	agcttgcgcc	ttcttctgct	780
gggtcatgcc	cttcgagaaa	cccaccttgg	ccacccttgt	gcttgagcgg	cgcgccacct	840
cagcaggcgg	cggcgtgggg	atgaagaggg	tgtctgcttc	cggagcaggc	gggtcggcgt	900
tgaacttgaa	aggcgggtgg	cccatgatgg	atggggggag	catgccaaag	acttggttga	960
ggaaagtgg	gttggcgctc	acctccagt	cctgcagttt	ggaagccaga	cgattggcgt	1020
cgatctctgg	ctccggctgg	aaggaggctc	gacgctccgg	tgtgccagaa	cgcaaaggga	1080
ggagcggcag	ctctggctga	gcagaccccg	cgcccatgta	ctctgcattg	ggccaaggct	1140
gcaggggcaa	gccaccggga	tgggggcg	aggtggactg	cgcaccggag	gaaggccaag	1200
ctcaacctcg	gtgaggttcg	ccccagacca	gggcggcagg	ctcgggtcca	caaagggcca	1260
aaccgcctcg	tccgcccga	aactgtccag	gacagacggc	ggacgacgga	aggcgtgtgc	1320
gtcgagctcg	agcagcagag	ggtccgtg	gggatgtct	tgccaaatgg	actccacctc	1380
cagcaggaag	ggggactgg	ccatcgcccc	tggccaagcc	actggtacgc	caaagatggc	1440
atcagcagcg	tttgaccag	ggggagcagc	cacaccttgg	aggacaggga	gggtgcggac	1500
gtcgacggca	gcaaaacgtg	gctggagcaa	ggtgccgtcg	cgtgccggcc	tcggcgagcg	1560
cgagcggctg	taggagcgct	cggtgccctc	agactcggac	agtgcgccag	tgggagagcc	1620

atggcgacgc	cgggccaccac	tggacgtgcc	atggcgctgg	tcctgacggc	gcctggatgg	1680
cccgtcctcg	cgggcagctc	cacctgagcg	gcacccgagg	agcacacccc	gccaagctgg	1740
gccaggggcg	ctgcgggcag	ggcgacggcc	gcggtcgcg	tctgcacccat	catcttcac	1800
ttcgtcatcg	tggcgccctcg	gacaaggatg	ctcgctgtca	ccgacgcgag	ggacgtgagc	1860
cggctcagcc	cgcccttcct	cgacgtggcg	agccctgcmg	atatgctcct	cgagcggcca	1920
ttggggggtcg	ttggcgcgcg	gcatctcg	gtcgcggtca	gctatcgggg	tgtatgcctt	1980
tgtggtgtcc	aggtggatga	gcagagagaa	atccggcccc	tctagccctt	cgtcccgggg	2040
gcagccctcc	ggcagcgtct	ggcgggccct	gggtgccagg	ggtcgatcga	tgatggagaa	2100
cccccttttg	gtggggatgt	cgtccggact	ccatgcccac	accaggcaaa	agaggcaggc	2160
cgtgttgagg	agggagggtcg	tctgcgcgtc	caaccagtcg	acgtggcatg	tcttcccag	2220
cgcacctgc	cccgcctcct	tgttccagg	ctgcaccggc	atgttctcga	cgcgatgcmg	2280
gcagtagtac	cgccagacac	ggcggtggcc	gtgtgccgat	ggtgaccagg	ccgacaggga	2340
gagcgcgacg	ccccagcagg	agacgacccc	agcgtcgaaa	gcgatgtccc	ggcgctgaa	2400
gtggacgagc	ccagagatgg	ccaggcgcat	tgacgcgggg	aaggggaagg	agttaggatg	2460
ggcgacgcgg	ccggagtga	ccgcggcggtg	gtggccgacg	gggctggaga	ggcagaggcg	2520
gagtcacccg	agagagggtg	atcagtggtt	ctgcacaata	cccagtgctg	ccacatcata	2580
tcctgtcgaa	taaccacaca	tgtgtactgt	cgttaaataa	atcattgggtc	acgcgaaccc	2640
ggaaaaagac	ggcgaaaaat	tcacggacac	acgactagta	gtaccaata	tactcgga	2700
aaacagtgc	acgtcggtttt	gcgttgtcgg	ccggtgttgt	cgagtcattg	tactatgttt	2760
tgtcggtttc	ttctttttctc	caaatcgaca	aaccgtttgt	ctttgggtta	aaaacagaaa	2820
catacaaaat	caaataaatg	cattcaaggg	ccggtaatcc	aattctgagc	ccaggctcag	2880
ctacacccgc	ccttacaaaa	aaatcaaaat	aaatactaga	aaaattcaaa	aaattccaat	2940
ttgtttgtgc	gtggtagata	atttgatgcg	tgagggtacgc	ttcaattttc	aaattatttg	3000
gacatctgag	cagctctcag	caaaaaagac	aaattccgggg	tctgtaaaaa	tgtttactgt	3060
tcacgactgc	ttctgacccg	atttgtcttt	tttgctgaga	gcttctcaga	agtccaaatg	3120
agctaaaatt	ttgagcggag	cttacgtgat	aaaatgtcta	tcacgcaaaa	aaggattgga	3180
atttttttgaa	ttttttttat	tttttgtgat	ttgtttcctg	gacgggtgca	gataagcctg	3240
ggcacccgaaa	cgccgcactc	aggctcatcc	ttttctataa	aagaaaagaa	atacatacaa	3300
tttccctctg	ttttttgagc	aaggggcacc	accacccaaa	gagttttcaa	ctcacatggg	3360
attagagcat	ctacagccgg	cgtctcctaa	cagccctcat	acgcttgagc	gggtcgccct	3420
ggtcacgatt	ttttgaccca	gacggggccc	tcaaacgggtc	cttaaacgcc	caggctgacc	3480
gacaacccac	atatccagcc	caaataatggg	gtggatatgg	ggcgcccg	gcacgccagc	3540
ccgcggacac	cacacatctt	cagtttctaa	tttgagatat	ccggatgtgg	aatgcgtttt	3600
tgaggggtga	ccggtccctg	tccgtggatg	cgcccggaag	tttgaggggt	tggatttgcc	3660
aagtctgatt	agagatgctc	ttaggtgttc	cacccctcat	ccttgatggc	tagggcaaac	3720
tctccctcc	aaactttgtc	ggcgagcctg	tggattcttc	tctcctctgc	ccgtgctcc	3780
ggcggtgat	ggcggggagg	agaatcccgg	tgtcttcgct	tggttagttg	tttaagttac	3840
gtactttttt	agtcctcgca	ggcgccggt	tcggacgtat	ggctgtgctt	cttttttgag	3900
tttgtcttcc	gggctctgat	cctcctcgag	ttcgtccatc	tggacgtact	cgacggagct	3960
ccggcataga	ttcctatcat	cgtcttggtg	aggtgaggtt	atggtttctt	gtcatgtggg	4020
cagatttggt	gccagatgct	tcatactat	tcaagggttc	agcggcaaca	actgcggctc	4080
cagagcgatg	gtccttaagg	gcacgtgcac	gaagacttca	cggctgttat	cgacaaggct	4140
aagccggctc	cgatagggga	gcagcgacag	cgcgcggtca	accgctcggt	ctggcggcag	4200
tagtggtcgt	tcggtgctct	cggaacctcg	atgtaatttt	tatgatttta	gagatgcttt	4260
gtacttccga	tcgatgaact	ctgataatag	atatctcttc	tctcgcaaaa	aaagagagtt	4320
ttcaactgaa	aacaaaagag	tttactagt	tcttctttta	gaaacagagt	ttcactagca	4380
cttttttttg	cgagaagtgc	agtttacta	agtactaaac	ccacgcaatt	attctcaaaa	4440
aaaaaaccca	cgcaactgtc	tggatccatc	ttcgtttttt	ccccgagaat	cgtctggatc	4500
cattttctgtg	tgcgaggcat	cctctcattt	tgcacggccc	agctctcttc	tcgcccggct	4560
acgctgctac	atgtcggcac	tcacgcaaaa	caaaaagaag	cccaaccgaa	aacgcacgcg	4620
cctttccagg	ctcaccacgg	aaaaaaatac	cacgcgccgc	tcacgagcaa	accgtgacaa	4680
cagccagcca	gatatggcaa	cggaggcacg	ggccgcacac	agccactgaa	aaccgcagct	4740
gctcttccgt	ccgtccgtcc	ctccgccgtc	ccgcgccact	ccactcgctt	tgccccactc	4800
ccactcttct	ctccccgcgc	acaccgagtc	ggcaccggct	catcacccat	cacctcgccc	4860
tcggccaccg	gcaaaccccc	cgatccgctt	ttgcaggcag	cgcaactaaa	ccccggggag	4920
cgcgccccgc	ggcagcgaca	gcaccgcagt	gggagagaga	ggcttcgccc	cggcccgcac	4980
cgagcggggc	gatccaccgt	ccgtgcgtcc	gcacctcttc	cgcctcctcc	cctgtcccgc	5040
gcgcccacac	ccatggcggc	gacggggcgtc	gg			5072

<210> 16  
 <211> 1706  
 <212> DNA  
 <213> *Triticum tauschii*

<400> 16  
 gctgtgtcga agcttgacta tttgaaggag cttggagtta attgtattga attaatgccc 60  
 tgccatgagt tcaacgagct ggagtactca acctcttctt ccaagatgaa cttttgggga 120  
 tattctacca taaacttctt ttcaccaatg acgagataga catcaggcgg gataaaaaac 180  
 tgtgggcgtg atgccataaa tgagttcaaa acttttgtaa gagaggctca caaacgggga 240  
 attgaggtga tcctggatgt tgtcttcaac catacagctg agggtaatga gaatgggtcca 300  
 atattatcat ttaggggggt cgataatact acatactata tgcttgccacc caaggagag 360  
 ttttataact attctggctg tgggaatacc ttcaactgta atcatcctgt ggttcgtcaa 420  
 ttcattgtag attgtttaag atactgggtg atggaaatgc atgttgatgg ttttcgtttt 480  
 gatcttgcat ccataatgac cagagggtcc agtctgtggg atccagttaa cgtgtatgga 540  
 gctccaatag aagggtgacat gatcacaaca gggacacctc ttgttactcc accacttatt 600  
 gacatgatca gcaatgaccc aattcttgga ggcgtcaagc tcattgctga agcatgggat 660  
 gcaggaggcc tctatcaagt aggtcaattc cctcactgga atgtttgggtc tgagtggaaat 720  
 gggaaagtacc gggacattgt gcgccaattc attaaaggca ctgatggatt tgctgggtgg 780  
 tttgcccgaat gtctttgtgg aagtcacac ctataccagg caggaggaag gaaaccttgg 840  
 cacagtatca actttgtatg tgcacatgat ggatttacac tgggtgattt ggtaacatat 900  
 aataacaagt acaatttacc aaatggggag aacaatagag atggagaaaa tcacaatctt 960  
 agctggaatt gtggggagga aggagaattc gcaagattgt ctgtcaaaag attgaggaag 1020  
 aggagatgc gcaatttctt tgtttgtctc atgggtttctc aaggagttcc aatgttttac 1080  
 atgggcgatg aatatggcca cacaaaaggg ggcaacaaca atacatactg ccatgattct 1140  
 tatgtcaatt attttcgctg ggataaaaaa gaacaatact ctgacttgca cagattctcg 1200  
 tgccatcatg ccaaattccg caaggagtgc gagggtcttg gccttgagga ctttccaacg 1260  
 gccgaacggc tgcagtggca tgggtcatcag cctgggaagc ctgattgggtc tgagaatagc 1320  
 cgattcgctt ctttttccat gaaagatgaa agacagggcg agatctatgt ggccttcaac 1380  
 accagccact taccggccgt tgttgagctc ccagagcgcg cagggcgccg gtgggaaccg 1440  
 gtggtggaca caggcaagcc agcaccatat gacttcctca ccgacgactt acctgatcgc 1500  
 gctctcacca tacaccagtt ctctcatttc ctcaactcca acctctacc catgctcagc 1560  
 tactcatcgg tcattcctagt attgcgcctt gatgtttgag agacaaatat atacagtaaa 1620  
 taatatgtct atatgtagtc ctttggcgta ttatcagtg gacacaattgc tctattgcca 1680  
 gtgatctatt cgatagcggc cgcgaa 1706

<210> 17  
 <211> 9289  
 <212> DNA  
 <213> *Triticum tauschii*

<400> 17  
 cgggaccgtc ccttggaac ttgggttacg ttgggacctg acgcttcgct tatccggtgt 60  
 gccctgagac gagatatgtg cagctcctat cggatttgct ggcacattcg gcggctttgc 120  
 tgggtcttgt ttaccattgt cgaaatgtct tataaaccgg gattccgaga ctgatcgggt 180  
 cttcccggga gaaggtttat ccttcgttga ccgtgagagc ttataatggg ctaagttggg 240  
 acaccctgc agggatttat ctttcgaaag ccgtgcccgc gggttatgagg cagatgggaa 300  
 tttgttaatg tccgattgta gagaacctgt cacttgactt aatttaaaat tcatcaaccg 360  
 tgtgtgtagc cgtgatggtc tcttttcggc ggagtccggg aagtgaacac ggtttgagtt 420  
 atgcatgaac gtaagtgtt tcaggatcac tcttgatca cttctagctc cgcgaccgtt 480  
 gcgttggttc tcttctcgct ctcatgttgc tatgttagcc accatatatg cttagtgtct 540  
 gctgcagctc cacctcatta ccccttcctt tcctataagc ttaaatagtc ttgatctcgc 600  
 ggggtgtgaga ttgctgagtc ctctgactt acagattcta ccaaacagc tgcaggtgtc 660  
 gacgatgcca gtgcaggtga cgcaaccgag ctcaagtggg agttcgacga ggaacgtgg 720  
 cgttactatg tttcttttcc tgatgatcag tagtgagacc cagttgggac gatcggggat 780



ctagcatttg	gggttatctt	aatttctttt	agatttgacc	gtaatcggtc	tatgtgtgga	840
ttttggatga	tgtatgaatt	atztatgtat	tgtgtgaagt	ggcgattgta	agccaactct	900
cgttatccca	ttcttgttca	ttacatggga	ttgtgtgaag	atgacccttc	ttgcgacaaa	960
accacaatgc	ggttatgcct	ctaagtctgt	cctcgacacg	tgggagatat	agccgcatcg	1020
tgggcgttac	acgcaagtct	tcatagcaac	caaaactcct	ctccgcatta	caagccacca	1080
atcgagacca	ccatgacttt	cttcaccact	gtcaatgcca	tgaaaatcta	tatgtagaca	1140
tgtcccattg	catcggaag	aaagcgaagc	ttcacggcac	accttcatga	agcctctctg	1200
gccgaagaca	aggatgcgcc	cgaccggatc	aattcctatc	tagataccta	gtggagccat	1260
gcgccaatag	cggagatctc	cgagagggaag	accggaactc	gtcggacgtc	ggcgtccaaa	1320
tcgaggagac	cggcatgaag	cacatcgagg	atggtgatcc	ccatacgggt	agatcgggtc	1380
ggccgccatc	tcacaccgag	attaggatgc	ttaaaacggg	ttttttggca	ctagcattat	1440
tttgcatacat	ccgttggaga	gaacatgaga	gagccccatt	tcttccacgg	ttctacctat	1500
gggatcttgt	tctgcttgca	accgggcctc	acggaaaacc	cgcgccagcg	gaccaccccc	1560
atgctagcag	ggcacggcac	ccgcagcggc	cgggtccaaat	ggacgggtgag	aaccgcaacg	1620
cgacacgccc	ggcactgtca	gcaaagcgag	agcgcgcgca	cggcacacgc	acgctcggag	1680
gaacggacgg	tgcatcgat	ccctccccc	tcgctcaacc	acagtagtac	cctgccacac	1740
tatcacgcac	gcactcgagt	cacacctccc	acgaagaacc	aacaggaggc	gcggtatcca	1800
ccgataaata	accccgccctc	gccgctcctc	cccaaaatca	atcaccgatc	gctcgggggt	1860
cccggcatga	cgatgatggc	catggccaag	gcgccttgcc	tctgcgcgcg	cccgtccctc	1920
gccgcgcgcg	cgaggcggcc	ggggccgggg	ccggcgcgcg	gcctgcgacg	gtggcgaccc	1980
aatgcgacgg	cggggaaggg	ggtcggcgag	gtgtgcgcgc	cgggtgtcga	ggcggcgacg	2040
aaggccgagg	atgaggacga	cgacgaggag	gaggcgggtg	cggaggacag	gtacgcgtc	2100
ggcggcgcg	gcaggggtgt	cgccggaatg	cccgcgccgc	tgggcgccac	cgcgctcgcc	2160
ggcgggggtca	atctcgccgt	ctactccggg	ggagccaccg	ccgcggcgct	ctgcctcttc	2220
acgccagaag	atctcaaggc	ggtgggggtg	cctcccaggt	agagttcatc	agctttgcgt	2280
gcgcgcgcgc	cccccttttc	tggcctgcga	tttaagtttt	gtactggggg	aatgctgca	2340
ggataggggtg	acggaggagg	tttcccttga	ccccctgatg	aatcggactg	ggaacgtgtg	2400
gcatgtcttc	attgaaggcg	agctgcacga	catgctttac	gggtacaggt	tcgacggcac	2460
ctttgtctct	cataggataa	actaccttga	tatttccaat	gtcgtgggtg	atccttatgc	2520
taagggtgatc	atacttttagc	tttacctgca	tcttggtatt	tacagtagaa	attgttacgt	2580
ggacccttat	ttgttgccct	ttgtgttgct	ctaggcagtg	ataagccgag	gggagtatgg	2640
cgttccggcg	cgtggttaaca	attgctggcc	tcagatggct	ggcatgatcc	ctcttccata	2700
tagcacggta	tgcttgattg	ctgaaaatat	tggctgcatt	tgtttctctc	tttttctcat	2760
atttttctct	tgtctttcac	ttgtactaca	ttgcctcaga	cagtcattgat	caaagagagc	2820
agtgctatta	gacatttgta	gttgtctgct	gactttgacc	aaaacttgta	atttactgtt	2880
gttaaagggtc	cttgaatcat	atttttttat	aatattatgt	ttgcaagtgg	aagtaaagtg	2940
aaattgcata	tagtatttgt	tggtgctgtc	ttagtcgttt	aattggacat	gcagtaaaaa	3000
ggtttgcatc	tgcatgttga	ttgggaaggc	gacctacctc	taagatatcc	tcaaaaggac	3060
ctggtaatat	atgagatgca	cttgcgtgga	ttcacgaagc	atgattcaag	caatgtagaa	3120
catccgggta	ctttcattgg	agctgtgtcg	aagcttgact	atltgaagg	acagctgtac	3180
ttgtgacta	cataggataa	tttttaaaaga	aagctacata	ttagccagaa	tttgggttat	3240
tacaaaaact	actgcatact	atagcagtta	catgctcatt	atcgaggaga	tgctcacacg	3300
catcttattt	ggattttaata	cccaattctg	ttttgatatt	ggactgttcc	ctctacagga	3360
gcttgagggt	aattgtattg	aattaatgcc	ctgccatgag	ttcaacgagc	tggagtactc	3420
aacctcttct	tccaagtaag	gacatgaatt	tagtatttagc	ctgccagcac	tgtttgagtg	3480
agagttcata	cacattttgt	gcctgcataa	ctgatatttg	ttcaaaactat	tttttttagc	3540
agtcactcaa	cagttttaca	tatatatata	atatagacta	ttcgtcaccc	tgggtgagga	3600
atagttatct	ttcaccaccc	tctatttttaa	catctatgca	ccgtaatttt	acgtttctgt	3660
aatttgtctt	atlttagaga	taaaaagaga	acgtaagaaa	acctataatc	gtcgtaaaaa	3720
aaaatatgtt	acgtaaaatt	acaaatgtaa	aaacatagtg	taaaatgtac	ataaaataca	3780
ttttttgacc	tatatltttt	ttgttaatgc	caaattttat	acagtaaaatc	aatatgaatg	3840
taactatttg	tatttcaaat	gtaattttat	tatgaaatgg	tcgtaagatt	acctcgggtg	3900
aagaataact	tatttgcac	cctgggtgat	gaatagtaac	actatatata	tatatatata	3960
tatatatata	tatatatacc	ggctgctgct	aatgatgtta	atatttgcga	agtacctaag	4020
ctggattttt	ctccatgaga	catcaatcca	taattgaaat	tggtcacgac	agttgaatag	4080
ttgatagctg	aaaatgaaat	ccagcatgct	actgtcttgc	catctccaga	cttgctaaca	4140
tgaattttgt	ctgcctacct	gtcattttgt	ccaacgttcc	caattgcctc	ctcattattc	4200
gtgtgtacca	tgcatatgtg	ttttaacatg	attattgttg	gctatatattc	tctttggaaa	4260

catgactaat	ttatcacccg	ttttgtataa	actgcttgtt	ttcatatcag	gatgaacttt	4320
tggggatatt	ctaccataaa	cttctttttca	ccaatgacga	gatacacatc	aggcgggata	4380
aaaaactgtg	ggcgtgatgc	cataaatgag	ttcaaaactt	ttgtaagaga	ggctcacaaa	4440
cggggaattg	aggtaagcaa	gtcgtacgag	ttagttgtct	cttttgaact	tatcaatttg	4500
atgcgaagac	atgttactgc	taggtgatcc	tggatgttgt	cttcaaccat	acagctgagg	4560
gtaatgagaa	tgggtccaata	ttatcattta	ggggggtcga	taatactaca	tactatatgc	4620
ttgcacccaa	ggtgacagat	ctttcttgct	gcgtaattgt	tctttcatag	atgtatagag	4680
catagatgtg	ttatgtagta	gttcttttttc	aaggggatta	tgttcatgca	gggagagttt	4740
tataactatt	ctggctgtgg	gaataccttc	aactgtaatc	atcctgtggt	tcgtcaattc	4800
attgtagatt	gtttaaggta	cagatatata	ttttacttct	agaactactt	tttcattttc	4860
tttgctgctt	gtcattttga	tatgattaat	ttgcaagctt	gtgggggtaa	atcctttggg	4920
cagcatattg	tatcttttaa	tgtcacaaat	actaatgtcc	tgggtgcttat	tgatttggca	4980
tcttcaaat	cttctccaat	gaaaaggga	aaatctactg	tatgtctcgt	caactaattt	5040
acttttgttt	tgcagatact	gggtgatgga	aatgcatggt	gatgggtttc	gttttgatct	5100
tgcattccata	atgaccagag	gttccaggta	atttgtattt	attgtttgtt	tgcgtgttgc	5160
cttttcagaa	gattctttaa	agaatgtttc	ttttacaagt	ctgtgggac	cagttaacgt	5220
gtatggagct	ccaatagaag	gtgacatgat	cacaacaggg	acacctcttg	ttactccacc	5280
acttattgac	atgatcagca	atgacccaat	tcttggaggc	gtcaaggtag	ttgtttcatc	5340
caacacctgt	tgtctgtgtg	cattcaattg	ttttaatatg	gtaatgatca	atttcccaat	5400
gttgataagg	aaaaaaaaatg	caagtagctc	tctttatctg	cttcttgtga	gttatgctaa	5460
acatgtagat	actactatat	ttcaactgta	tatacttgac	atattattgc	ttccttggga	5520
ggctctctta	ttcctttccc	ccgttgcaat	tatagctcat	tgctgaagca	tgggatgcag	5580
gaggcctcta	tcaagtaggt	caattccctc	actggaatgt	tgggtctgag	tggaaatggga	5640
aggtaaggta	cctgttaaaa	gtttgaatgg	caaatactga	tagaaatata	acttatattt	5700
gcgacatata	tagataaagc	aaaataatac	gcattccacc	tgaacttta	aggggcacgc	5760
agaattatcc	cgcactctgtc	tacaagaatg	ataacacatg	tgctgaatag	tgaagtacta	5820
cttctcaaat	gtctgaatga	acgcactaac	tcttgtgagt	gtcaaccgag	caagaaatat	5880
ttgagttttc	tgcaagaaat	tgttcatggt	gtgctgtatt	atactccctc	cgtccgaaat	5940
tatttgtcgg	agaaatggat	gtatctagac	gtattttagt	tctagatata	tccattttta	6000
tccatttctg	caacaagtag	ttccggacgg	agggagtatc	atttaacaaa	tatatgcatg	6060
ttcgaagtaa	atccccacga	ataagcatat	aagacgatat	tgctttttga	cttgcaacac	6120
ctaaacctca	ttgtttttctc	ctaggatttt	gggtgttcga	agcaagcagc	tgggtgatatt	6180
taattttacct	ttgccttttat	ttgtagcttg	atttgagggt	gcggcaaaagg	tttttagctta	6240
gtagtgtttt	gtaaattatt	atagttttatg	tataactctc	tcatttgggc	acttccgtac	6300
tgggtcccata	gaagataaaa	atggaatgat	gtctggccaa	taattgttga	caacactggt	6360
gcgcatttga	tttttatcag	ggaatggaaa	attgaaatcg	gtaagaaaca	ttgcgatatt	6420
aagcttgtat	atgctaattgc	tgggtggatct	ttaagaggga	acatatgatc	tcgtgtgcat	6480
ccatcttcaa	ctaaaaaaat	atgttgca	tctcccacgt	cacttactag	ctatttcatc	6540
caagtactaa	cttgtgtggt	tgtctcctca	gtaccgggac	attgtgcgcc	aattcattaa	6600
aggcactgat	ggatttgctg	gtggttttgc	cgaatgtctt	tgtggaagtc	cacacctata	6660
ccaggtaagt	tgtggcaata	cttggaatg	ggttgagtga	atgtcacatg	gattttttat	6720
atataccaca	tgatgatata	catgtaaata	tataacgatt	atagtgtatg	catatgcatt	6780
tggctaagaa	gtactccctc	ccttagtaaa	agttagtaca	aagttgagtc	atctattttg	6840
gaacggaggg	agtataagtg	tatacactag	tgcaatatat	aggttttaac	acccaacttg	6900
ccaatgaagg	aacatagggc	tttctagtta	tcttatttat	ttgtctgggtg	aataatccac	6960
tgaaaaattc	cagccatgtc	atttttttagg	gggggagaag	aaactacatt	gattttttccc	7020
cctaaaaaaa	gccatctcag	atttcatagg	taacttgctt	ttctgtaaag	aatgaaaaa	7080
gacttcatac	tttctgtcga	ttataagtgt	atacactagt	gcaatatata	ggttttaaca	7140
cccaacttgc	caatgaagga	acatagggct	ttctagtatt	cttattttatt	tgctggtgaa	7200
taatccactg	aaaaattcca	gccatgtcat	tttttagggg	ggagaagaaa	ctatattgat	7260
ttttccccc	aaaaaaagcc	atctcagatt	cataggaaact	tgcttttctg	taaagaaatg	7320
aaaacgactt	catactttct	gcggcgctta	cttagctcga	tggatatttg	taagatgaat	7380
gccaaattat	ttggcgggat	ttgatcgta	ttccaaattt	catttgggtt	ctctagcaat	7440
caacccagta	ccttgttatt	ggcactgcaa	tttcttattg	attaatcagg	caggaggaag	7500
gaaaccttgg	cacagtatca	acttggtatg	tgcacatgat	ggatttacac	tgggtgattt	7560
ggtacatata	ataccaagtc	aatttaccac	atggggagac	caatagagat	ggagaaaatc	7620
acaatcttag	ctggaattgt	ggggaggtaa	ttctgaaact	tccttttttt	ttgaaatttt	7680
catgctttac	ataatagtca	aatggctgac	aaatgtcggt	gtatggttct	ctctacctaa	7740

```

accgttaagg cagtaagagt ttccctacaa gatctctttg ttcgtataat tgtatTTTTct 7800
agagaaaagt tgccttcaat tttgtgcacg cggcagtaca ggaattgtgg ttataaatat 7860
tgatacaggc tgaccatcgt tactaatagg gggaacaata agcacatttt tttaatagca 7920
aaggcatcac ccttgttccg tttccaatga aatcacagta tccgaaccat aagttttaca 7980
agtatgCGta gagagaaata aagtatcaac ccggcagaaa cagttgtttc aggcgcaaag 8040
agaaaaggaa acgatatgct ctattacatc aaccttttag catttaggga cgaccagcat 8100
catcccatct tcaatcaact ggagcgaggt cacctccaat cttctcagca gcctcagagt 8160
ggtgacctcc caagcaagtg catcagcatc catcatctgg gggttgggca cataccatga 8220
gcacaatcac ctgaatttga tgaattttcc tctgtttacc ttgcagcaga cccctgccgt 8280
ataaatgggt ttaaatgaca gcatgttctt tcagtttgag caaaatttgt gcaattgcaa 8340
agaagcttta gaatcatgtg gaacatgcac ttacatttca tctgacaata taggaaggag 8400
agcccgacgt cgcagtctcc tctagactcg aggaattcgc aagattgtct gtcaaaagat 8460
tgaggaagag gcagatgcgc aatttctttg tttgtctcat ggtttctcaa gtaagactta 8520
tatctgatct cttcaatttt tgagattgcc tgtttttcac aatggcatat gttgtcaggt 8580
gaaacatcca atcccagtat taatagagcc aacatgaagg gattgcttat ctgagatata 8640
tgccaaagtt gaattcttag attcaccttc ttcagtattt cagaccttct aagcattttc 8700
attttttttt tcaattgtta gggagttcca atgtttttaca tgggcgatga atatggccac 8760
acaaaagggg gcaacaacaa tacatactgc catgattctt atgtcagtac aatttggtca 8820
catattgttg ttctaagtaa ctatcttcaa atctttgcat tcatccgtca tggctcttct 8880
gtaggtcaat tattttcgct gggataaaaa agaacaatac tctgacttgc aaagattctg 8940
ctgcctcatg accaaattcc gcaagtaagt attccgttga ataatttctg tgtagaacca 9000
ctgaagggtg ctccaaacgc taagcgagca aggtcaattt cacaccctaa tcaagttggg 9060
gttgtctatt tgtgtatttg atctgctgca ctgtagggag tgcgagggtc ttggccttga 9120
ggactttcca acggccgaac ggctgcagtg gcatggtcac cagcctggga agcctgattg 9180
gtctgagaat agccgattcg ttgccttttc catggtacac atatagttct gacacttcac 9240
tatagttggt ttaaaaaaga aaatttaact caaaagtaaa ttatggaga 9289

```

<210> 18

<211> 11

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: GCN 4  
oligonucleotide

<400> 18

gatgagctca t

11

<210> 19

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Illustrative  
oligonucleotide

<400> 19

ctcgttgctt cctactccac t

21

<210> 20

<211> 135

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: DNA construct

<400> 20

gcggcgcgtc cctggccgac ttggccgaag cttgcatgcc tgcaggtcga ctctagagga 60  
tcccgggta ccgagctcga attcatcgat gatatcagat ccggggccctc tagatgcggc 120  
cgcatgcata agctt 135

<210> 21

<211> 50

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: DNA construct

<400> 21

cgcgcgccca caccctgcag gtcgactcta gaggatccat ggtgagcaag 50

<210> 22

<211> 50

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: DNA construct

<400> 22

gcgactggct gactcaatca ctacgcgggg atccatggtg agcaagggcg 50

<210> 23

<211> 50

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: DNA construct

<400> 23

ggactcctct cgcgcgcgtcc tgagccgcgg atccatggtg agcaagggcg 50

<210> 24

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Primer

<400> 24

ttctcaccgc taaccgtgga c 21

<210> 25  
 <211> 21  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Primer

<400> 25  
 tggctctgaga atagccgatt c 21

<210> 26  
 <211> 23  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Primer

<400> 26  
 ccagatcgta tatcggaagg tcg 23

<210> 27  
 <211> 23  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Primer

<400> 27  
 agccacgatt atgctgtcga tgg 23

<210> 28  
 <211> 23  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Primer

<400> 28  
 gtctacatga cgtagggttg gtc 23

<210> 29  
 <211> 18  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Primer

<400> 29  
 aaggccacat agatctcg 18

<210> 30  
 <211> 16  
 <212> PRT  
 <213> *Oryza sativa*

<400> 30  
 Ala Thr Ala Arg Lys Asn Lys Thr Met Val Thr Val Val Glu Glu Val  
 1 5 10 15

<210> 31  
 <211> 16  
 <212> PRT  
 <213> *Zea mays*

<400> 31  
 Ala Thr Val Gln Glu Asp Lys Thr Met Ala Thr Ala Lys Gly Asp Val  
 1 5 10 15

<210> 32  
 <211> 21  
 <212> PRT  
 <213> *Oryza sativa*

<400> 32  
 Ala Ala Gly Ala Ser Gly Glu Val Met Ile Pro Glu Gly Glu Ser Asp  
 1 5 10 15

Gly Met Pro Val Ser  
 20

<210> 33  
 <211> 20  
 <212> PRT  
 <213> *Triticum tauschii*

<400> 33  
 Ala Ala Ser Pro Gly Lys Val Leu Val Pro Asp Gly Glu Ser Asp Asp  
 1 5 10 15

Leu Ala Ser Tyr  
 20

<210> 34  
 <211> 21  
 <212> PRT  
 <213> *Zea mays*

<400> 34  
 Ala Ala Ala Ala Arg Lys Ala Val Met Val Pro Glu Gly Glu Asn  
 1 5 10 15

Asp Gly Leu Ala Ser  
20

<210> 35  
<211> 19  
<212> PRT  
<213> Triticum tauschii

<400> 35  
Ser Arg Val Cys Ala Lys Arg Leu His His Gly Asn Ser Arg Trp Cys  
1 5 10 15

Trp Arg Pro

<210> 36  
<211> 20  
<212> PRT  
<213> Triticum tauschii

<400> 36  
Pro Cys Leu Arg Gln Glu Thr Thr Pro Trp Gln Gln Leu Lys Met Val  
1 5 10 15

Leu Ala Thr Phe  
20

<210> 37  
<211> 16  
<212> PRT  
<213> Triticum tauschii

<400> 37  
Gly Pro Tyr Val Ala Glu Leu Ser Pro Glu Gly Pro Ala Ala Pro Pro  
1 5 10 15

<210> 38  
<211> 161  
<212> DNA  
<213> Triticum tauschii

<220>  
<221> CDS  
<222> (3)..(161)

<400> 38  
at act aca tac tat atg ctt gca ccc aag gga cac ttt tat aac tat 47  
Thr Thr Tyr Tyr Met Leu Ala Pro Lys Gly His Phe Tyr Asn Tyr  
1 5 10 15  
tct ggc tgt ggg aat acc ttc aac tgt aat cat cct gtg gtt cgt caa 95  
Ser Gly Cys Gly Asn Thr Phe Asn Cys Asn His Pro Val Val Arg Gln  
20 25 30

ttc att gta gat tgt tta aga tac tgg gtg acg gaa atg cat gtt gat 143  
 Phe Ile Val Asp Cys Leu Arg Tyr Trp Val Thr Glu Met His Val Asp  
                   35                  40                  45

ggt ttt cgt ttt gac ctt 161  
 Gly Phe Arg Phe Asp Leu  
                   50

<210> 39  
 <211> 53  
 <212> PRT  
 <213> Triticum tauschii

<400> 39  
 Thr Thr Tyr Tyr Met Leu Ala Pro Lys Gly His Phe Tyr Asn Tyr Ser  
   1                  5                  10                  15  
 Gly Cys Gly Asn Thr Phe Asn Cys Asn His Pro Val Val Arg Gln Phe  
                   20                  25                  30  
 Ile Val Asp Cys Leu Arg Tyr Trp Val Thr Glu Met His Val Asp Gly  
                   35                  40                  45  
 Phe Arg Phe Asp Leu  
                   50

<210> 40  
 <211> 50  
 <212> PRT  
 <213> Triticum tauschii

<400> 40  
 Ile Leu His Thr Ile Cys Leu His Pro Arg Asp Thr Phe Ile Thr Ile  
   1                  5                  10                  15  
 Leu Ala Val Gly Ile Pro Ser Thr Val Ile Ile Leu Trp Phe Val Asn  
                   20                  25                  30  
 Ser Leu Ile Val Asp Thr Gly Arg Lys Cys Met Leu Met Val Phe Val  
                   35                  40                  45  
 Leu Thr  
           50

<210> 41  
 <211> 49  
 <212> PRT  
 <213> Triticum tauschii

<400> 41  
 Tyr Tyr Ile Leu Tyr Ala Cys Thr Gln Gly Thr Leu Leu Leu Phe Trp  
   1                  5                  10                  15



Leu Trp Glu Tyr Leu Gln Leu Ser Ser Cys Gly Ser Ser Ile His Cys  
                   20                                  25                                  30

Arg Leu Phe Lys Ile Leu Gly Asp Gly Asn Ala Cys Trp Phe Ser Phe  
                   35                                  40                                  45

Pro

<210> 42  
 <211> 256  
 <212> DNA  
 <213> Zea mays

<400> 42  
 tgaggtgac atggatgttg tcttcaatca tacagctgaa ggtaatgaga aaggcccaat 60  
 attatccttt agggggatag ataatagtag atactacatg cttgcaccta agggagagtt 120  
 ttataattat tctggttggtg gaaatacctt caattgtaat catcctgtag tccgtgaatt 180  
 tatagtggat tgcttgagat actgggtaac agaaatgcat gttgatgggtt ttcgttttga 240  
 ccttgcacatc atactg 256

<210> 43  
 <211> 254  
 <212> DNA  
 <213> Triticum tauschii

<220>  
 <221> modified\_base  
 <222> (139)  
 <223> a, t, c, g, other or unknown

<220>  
 <221> modified\_base  
 <222> (195)  
 <223> a, t, c, g, other or unknown

<220>  
 <221> modified\_base  
 <222> (221)  
 <223> a, t, c, g, other or unknown

<220>  
 <221> modified\_base  
 <222> (247)  
 <223> a, t, c, g, other or unknown

<220>  
 <221> modified\_base  
 <222> (251)  
 <223> a, t, c, g, other or unknown

<400> 43  
 gtgatcatgg atgttgtctt caaccatata gctgagggtg atgagaatgg tccaatatta 60  
 tcatttaggg gggtcgataa tactacatac tatatgcttg caccgaagg acacttttat 120  
 aactattctg gctgtgggna taccttcaac tgtaatcatc ctgtgggttcg tcaattcatt 180  
 gtagattgtt taagntactg ggtgacggaa atgcatgttg ntggttttcg ttttgacctt 240

gcatctnctt naaa

254

<210> 44

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Primer

<400> 44

tcgtggttat gaaaagcttg g

21

<210> 45

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Primer

<400> 45

acaattggaa tccaaatgca

20

<210> 46

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Primer

<400> 46

ttgacggctt gaatggtttc

20

<210> 47

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Primer

<400> 47

aatggataga tttccaaga gg

22

<210> 48

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Primer

<400> 48  
caggaccttc cctggagagg

20

<210> 49  
<211> 22  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Primer

<400> 49  
ggcacgagtg tgtgtacctg ta

22

<210> 50  
<211> 20  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Primer

<400> 50  
tatcttcagg tatctacagc

20

<210> 51  
<211> 20  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Primer

<400> 51  
atgcttccaa tccaccttca

20

<210> 52  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Primer

<400> 52  
gagcccatc tcggtagt a

21

<210> 53  
<211> 20  
<212> DNA  
<213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Primer

<400> 53  
 ctgcatttgg attccaattg 20

<210> 54  
 <211> 21  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Primer

<400> 54  
 cagtaagcta gttggtgaat a 21

<210> 55  
 <211> 20  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Primer

<400> 55  
 gggaggaaaa tctcccaaac 20

<210> 56  
 <211> 20  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Primer

<400> 56  
 ccattgaaag gtatttcacc 20

<210> 57  
 <211> 19  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Primer

<400> 57  
 taacttattg acataccgg 19

<210> 58  
 <211> 21  
 <212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Primer

<400> 58

ctggagttcc aaaacggcta c

21

<210> 59

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Primer

<400> 59

attcttcaag ccaccatctc

20

<210> 60

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Primer

<400> 60

tattgttatt tccaggggag a

21

<210> 61

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Primer

<400> 61

tgctgcattg cctgatcgaa

20

<210> 62

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Primer

<400> 62

aacacccagg cccgtccatt

20

<210> 63  
<211> 480  
<212> DNA  
<213> *Triticum tauschii*

<220>  
<221> CDS  
<222> (1)..(237)

<220>  
<221> CDS  
<222> (241)..(300)

<220>  
<221> CDS  
<222> (304)..(408)

<220>  
<221> CDS  
<222> (412)..(480)

<220>  
<221> modified\_base  
<222> (22)  
<223> a, t, c, g, other or unknown

<220>  
<221> modified\_base  
<222> (43)  
<223> a, t, c, g, other or unknown

<220>  
<221> modified\_base  
<222> (87)  
<223> a, t, c, g, other or unknown

<220>  
<221> modified\_base  
<222> (98)  
<223> a, t, c, g, other or unknown

<220>  
<221> modified\_base  
<222> (103)  
<223> a, t, c, g, other or unknown

<220>  
<221> modified\_base  
<222> (124)  
<223> a, t, c, g, other or unknown

<220>  
<221> modified\_base  
<222> (148)  
<223> a, t, c, g, other or unknown

<220>

&lt;221&gt; CDS

&lt;222&gt; (412)..(480)

&lt;400&gt; 63

ttc cct ttt ttt ttc ttt ggg ngg ggg atg gcc tgt tgg atg ntg ttc	48
Phe Pro Phe Phe Phe Phe Gly Xaa Gly Met Ala Cys Trp Met Xaa Phe	
1 5 10 15	
ccc aat gaa ttt cca tgg agt gag aga gat agt tgg atn agg gat cgc	96
Pro Asn Glu Phe Pro Trp Ser Glu Arg Asp Ser Trp Xaa Arg Asp Arg	
20 25 30	
gnt tcc ngg aac tgt att ttt ttc ccc ngc ggg gga aat ggc gtt agt	144
Xaa Ser Xaa Asn Cys Ile Phe Phe Pro Xaa Gly Gly Asn Gly Val Ser	
35 40 45	
gtc nac cca ggc cct ggt gtt acc acg gct ttg atc att ctt cgt ttc	192
Val Xaa Pro Gly Pro Gly Val Thr Thr Ala Leu Ile Ile Leu Arg Phe	
50 55 60	
att ctg ata tat att ttc tca ttc ttt ttc ttc ctg ttc ttg ctg taa	240
Ile Leu Ile Tyr Ile Phe Ser Phe Phe Phe Phe Leu Phe Leu Leu	
65 70 75	
ctg caa gtt gtg gcg ttt ttt cac tat tgt agt cat cct tgc att ttg	288
Leu Gln Val Val Ala Phe Phe His Tyr Cys Ser His Pro Cys Ile Leu	
80 85 90 95	
cag gcg ccg tcc tga gcc gcg cgg cct ctc cag gga agg tcc tgg tgc	336
Gln Ala Pro Ser Ala Ala Arg Pro Leu Gln Gly Arg Ser Trp Cys	
100 105 110	
ctg acg gcg aga gng acg act tgg caa gtc cgg cgc aac ctg aag aat	384
Leu Thr Ala Arg Xaa Thr Thr Trp Gln Val Arg Arg Asn Leu Lys Asn	
115 120 125	
tac agg tac aca cac tcg tgc cgg taa atc ttc ata caa tcg tta ttc	432
Tyr Arg Tyr Thr His Ser Cys Arg Ile Phe Ile Gln Ser Leu Phe	
130 135 140	
act tac caa atg ccg gat gaa acc aac cac gga tgc gtc agg ttt cga	480
Thr Tyr Gln Met Pro Asp Glu Thr Asn His Gly Cys Val Arg Phe Arg	
145 150 155	

&lt;210&gt; 64

&lt;211&gt; 157

&lt;212&gt; PRT

&lt;213&gt; Triticum tauschii

&lt;220&gt;

&lt;221&gt; MOD\_RES

&lt;222&gt; (8)

&lt;223&gt; Any amino acid

&lt;220&gt;

&lt;221&gt; MOD\_RES

&lt;222&gt; (15)

<223> Any amino acid

<220>

<221> MOD\_RES

<222> (29)

<223> Any amino acid

<220>

<221> MOD\_RES

<222> (33)

<223> Any amino acid

<220>

<221> MOD\_RES

<222> (35)

<223> Any amino acid

<220>

<221> MOD\_RES

<222> (42)

<223> Any amino acid

<220>

<221> MOD\_RES

<222> (50)

<223> Any amino acid

<220>

<221> MOD\_RES

<222> (115)

<223> Any amino acid

<400> 64

Phe	Pro	Phe	Phe	Phe	Phe	Gly	Xaa	Gly	Met	Ala	Cys	Trp	Met	Xaa	Phe
1				5					10					15	

Pro	Asn	Glu	Phe	Pro	Trp	Ser	Glu	Arg	Asp	Ser	Trp	Xaa	Arg	Asp	Arg
			20					25					30		

Xaa	Ser	Xaa	Asn	Cys	Ile	Phe	Phe	Pro	Xaa	Gly	Gly	Asn	Gly	Val	Ser
		35					40					45			

Val	Xaa	Pro	Gly	Pro	Gly	Val	Thr	Thr	Ala	Leu	Ile	Ile	Leu	Arg	Phe
	50					55					60				

Ile	Leu	Ile	Tyr	Ile	Phe	Ser	Phe	Phe	Phe	Phe	Leu	Phe	Leu	Leu	Leu
65					70					75					80

Gln	Val	Val	Ala	Phe	Phe	His	Tyr	Cys	Ser	His	Pro	Cys	Ile	Leu	Gln
				85					90					95	

Ala	Pro	Ser	Ala	Ala	Arg	Pro	Leu	Gln	Gly	Arg	Ser	Trp	Cys	Leu	Thr
			100					105					110		

Ala	Arg	Xaa	Thr	Thr	Trp	Gln	Val	Arg	Arg	Asn	Leu	Lys	Asn	Tyr	Arg
			115				120					125			



Tyr Thr His Ser Cys Arg Ile Phe Ile Gln Ser Leu Phe Thr Tyr Gln  
 130 135 140

Met Pro Asp Glu Thr Asn His Gly Cys Val Arg Phe Arg  
 145 150 155

<210> 65  
 <211> 156  
 <212> PRT  
 <213> Triticum tauschii

<220>  
 <221> MOD\_RES  
 <222> (14)  
 <223> Any amino acid

<220>  
 <221> MOD\_RES  
 <222> (29)  
 <223> Any amino acid

<220>  
 <221> MOD\_RES  
 <222> (33)  
 <223> Any amino acid

<220>  
 <221> MOD\_RES  
 <222> (114)  
 <223> Any amino acid

<400> 65  
 Ser Leu Phe Phe Ser Leu Gly Gly Gly Trp Pro Val Gly Xaa Cys Ser  
 1 5 10 15

Pro Met Asn Phe His Gly Val Arg Glu Ile Val Gly Xaa Gly Ile Ala  
 20 25 30

Xaa Pro Gly Thr Val Phe Phe Ser Pro Ala Gly Glu Met Ala Leu Val  
 35 40 45

Ser Thr Gln Ala Leu Val Leu Pro Arg Leu Ser Phe Phe Val Ser Phe  
 50 55 60

Tyr Ile Phe Ser His Ser Phe Ser Ser Cys Ser Cys Cys Asn Cys Lys  
 65 70 75 80

Leu Trp Arg Phe Phe Thr Ile Val Val Ile Leu Ala Phe Cys Arg Arg  
 85 90 95

Arg Pro Glu Pro Arg Gly Leu Ser Arg Glu Gly Pro Gly Ala Arg Arg  
 100 105 110

Glu Xaa Arg Leu Gly Lys Ser Gly Ala Thr Arg Ile Thr Gly Thr His  
 115 120 125

Thr Arg Ala Gly Lys Ser Ser Tyr Asn Arg Tyr Ser Leu Thr Lys Cys  
 130 135 140

Arg Met Lys Pro Thr Thr Asp Ala Ser Gly Phe Glu  
 145 150 155

<210> 66  
 <211> 153  
 <212> PRT  
 <213> Triticum tauschii

<220>  
 <221> MOD\_RES  
 <222> (7)  
 <223> Any amino acid

<220>  
 <221> MOD\_RES  
 <222> (14)  
 <223> Any amino acid

<220>  
 <221> MOD\_RES  
 <222> (26)  
 <223> Any amino acid

<220>  
 <221> MOD\_RES  
 <222> (31)  
 <223> Any amino acid

<220>  
 <221> MOD\_RES  
 <222> (38)  
 <223> Any amino acid

<220>  
 <221> MOD\_RES  
 <222> (45)  
 <223> Any amino acid

<220>  
 <221> MOD\_RES  
 <222> (111)  
 <223> Any amino acid

<400> 66  
 Pro Phe Phe Phe Leu Trp Xaa Gly Asp Gly Leu Leu Asp Xaa Val Pro  
 1 5 10 15

Gln Ile Ser Met Glu Glu Arg Leu Asp Xaa Gly Ser Arg Phe Xaa Glu  
 20 25 30

Leu Tyr Phe Phe Pro Xaa Arg Gly Lys Trp Arg Cys Xaa Pro Arg Pro  
 35 40 45

Trp Cys Tyr His Gly Phe Asp His Ser Ser Phe His Ser Asp Ile Tyr  
 50 55 60  
 Phe Leu Ile Leu Phe Leu Pro Val Leu Ala Val Thr Ala Ser Cys Gly  
 65 70 75 80  
 Val Phe Ser Leu Leu Ser Ser Leu His Phe Ala Gly Ala Val Leu Ser  
 85 90 95  
 Arg Ala Ala Ser Pro Gly Lys Val Leu Val Pro Asp Gly Glu Xaa Asp  
 100 105 110  
 Asp Leu Ala Ser Pro Ala Gln Pro Glu Glu Leu Gln Val His Thr Leu  
 115 120 125  
 Val Pro Val Asn Leu His Thr Ile Val Ile His Leu Pro Asn Ala Gly  
 130 135 140  
 Asn Gln Pro Arg Met Arg Gln Val Ser  
 145 150

<210> 67  
 <211> 816 .  
 <212> PRT  
 <213> Oryza sativa

<400> 67  
 Met Leu Cys Leu Thr Ser Ser Ser Ser Ser Ala Pro Pro Pro Leu Leu  
 1 5 10 15  
 Pro Ser Ala Asp Arg Pro Ser Pro Gly Ile Ala Gly Gly Gly Gly Asn  
 20 25 30  
 Val Arg Leu Ser Val Val Ser Ser Ser Pro Arg Arg Ser Trp Pro Gly  
 35 40 45  
 Lys Val Lys Thr Asn Phe Ser Val Pro Ala Thr Ala Arg Lys Asn Lys  
 50 55 60  
 Thr Met Val Thr Val Val Glu Asp Val Asp His Leu Pro Ile Tyr Asp  
 65 70 75 80  
 Leu Asp Pro Lys Leu Glu Glu Phe Lys Asp His Phe Asn Tyr Arg Ile  
 85 90 95  
 Lys Arg Tyr Leu Asp Gln Lys Cys Leu Ile Glu Lys His Glu Gly Gly  
 100 105 110  
 Leu Glu Glu Phe Ser Lys Gly Tyr Leu Lys Phe Gly Ile Asn Thr Val  
 115 120 125  
 Gly Ala Thr Val Tyr Arg Glu Trp Ala Pro Ala Ala Gln Glu Ala Gln  
 130 135 140  
 Leu Ile Gly Asp Phe Asn Asn Trp Asn Gly Ala Lys His Lys Met Glu  
 145 150 155 160

Lys Asp Lys Phe Gly Val Trp Ser Ile Lys Ile Ser His Val Asn Gly  
 165 170 175  
 Lys Pro Ala Ile Pro His Asn Ser Lys Val Lys Phe Arg Phe Arg His  
 180 185 190  
 Gly Gly Gly Ala Trp Val Asp Arg Ile Pro Ala Trp Ile Arg Tyr Ala  
 195 200 205  
 Thr Phe Asp Ala Ser Lys Phe Gly Ala Pro Tyr Asp Gly Val His Trp  
 210 215 220  
 Asp Pro Pro Ala Cys Glu Arg Tyr Val Phe Lys His Pro Arg Pro Pro  
 225 230 235 240  
 Lys Pro Asp Ala Pro Arg Ile Tyr Glu Ala His Val Gly Met Ser Gly  
 245 250 255  
 Glu Glu Pro Glu Val Ser Thr Tyr Arg Glu Phe Ala Asp Asn Val Leu  
 260 265 270  
 Pro Arg Ile Arg Ala Asn Asn Tyr Asn Thr Val Gln Leu Met Ala Ile  
 275 280 285  
 Met Glu His Ser Tyr Tyr Ala Ser Phe Gly Tyr His Val Thr Asn Phe  
 290 295 300  
 Phe Ala Val Ser Ser Arg Ser Gly Thr Pro Glu Asp Leu Lys Tyr Leu  
 305 310 315 320  
 Asp Lys Ala His Ser Leu Gly Leu Arg Val Leu Met Asp Val Val His  
 325 330 335  
 Ser His Ala Ser Asn Asn Val Thr Asp Gly Leu Asn Gly Tyr Asp Val  
 340 345 350  
 Gly Gln Asn Thr His Glu Ser Tyr Phe His Thr Gly Asp Arg Gly Tyr  
 355 360 365  
 His Lys Leu Trp Asp Ser Arg Leu Phe Asn Tyr Ala Asn Trp Glu Val  
 370 375 380  
 Leu Arg Phe Leu Leu Ser Asn Leu Arg Tyr Trp Asp Glu Phe Met Phe  
 385 390 395 400  
 Asp Gly Phe Arg Phe Asp Gly Val Thr Ser Met Leu Tyr His His His  
 405 410 415  
 Gly Ile Asn Lys Gly Phe Thr Gly Asn Tyr Lys Glu Tyr Phe Ser Leu  
 420 425 430  
 Asp Thr Asp Val Asp Ala Val Val Tyr Met Met Leu Ala Asn His Leu  
 435 440 445  
 Met His Lys Leu Leu Pro Glu Ala Thr Val Val Ala Glu Asp Val Ser  
 450 455 460

Gly	Met	Pro	Val	Leu	Cys	Arg	Pro	Val	Asp	Glu	Gly	Gly	Val	Gly	Phe	465	470	475	480
Asp	Tyr	Arg	Leu	Ala	Met	Ala	Ile	Pro	Asp	Arg	Trp	Ile	Asp	Tyr	Leu	485	490	495	
Lys	Asn	Lys	Asp	Asp	Arg	Lys	Trp	Ser	Met	Ser	Glu	Ile	Val	Gln	Thr	500	505	510	
Leu	Thr	Asn	Arg	Arg	Tyr	Thr	Glu	Lys	Cys	Ile	Ala	Tyr	Ala	Glu	Ser	515	520	525	
His	Asp	Gln	Ser	Ile	Val	Gly	Asp	Lys	Thr	Ile	Ala	Phe	Leu	Leu	Met	530	535	540	
Asp	Lys	Glu	Met	Tyr	Thr	Gly	Met	Ser	Asp	Leu	Gln	Pro	Ala	Ser	Pro	545	550	555	560
Thr	Ile	Asn	Arg	Gly	Ile	Ala	Leu	Gln	Lys	Met	Ile	His	Phe	Ile	Thr	565	570	575	
Met	Ala	Leu	Gly	Gly	Asp	Gly	Tyr	Leu	Asn	Phe	Met	Gly	Asn	Glu	Phe	580	585	590	
Gly	His	Pro	Glu	Trp	Ile	Asp	Phe	Pro	Arg	Glu	Gly	Asn	Asn	Trp	Ser	595	600	605	
Tyr	Asp	Lys	Cys	Arg	Arg	Gln	Trp	Ser	Leu	Val	Asp	Thr	Asp	His	Leu	610	615	620	
Arg	Tyr	Lys	Tyr	Met	Asn	Ala	Phe	Asp	Gln	Ala	Met	Asn	Ala	Leu	Asp	625	630	635	640
Glu	Phe	Ser	Phe	Leu	Ser	Ser	Ser	Lys	Gln	Ile	Val	Ser	Asp	Met	Asn	645	650	655	
Glu	Lys	Lys	Val	Ile	Val	Phe	Glu	Arg	Gly	Asp	Leu	Val	Phe	Val	Phe	660	665	670	
Asn	Phe	His	Pro	Asn	Lys	Thr	Tyr	Lys	Gly	Tyr	Lys	Val	Gly	Cys	Asp	675	680	685	
Leu	Pro	Gly	Lys	Tyr	Arg	Val	Ala	Leu	Asp	Ser	Asp	Ala	Leu	Val	Phe	690	695	700	
Gly	Gly	His	Gly	Arg	Val	Gly	His	Asp	Val	Asp	His	Phe	Thr	Ser	Pro	705	710	715	720
Glu	Gly	Met	Pro	Gly	Val	Pro	Glu	Thr	Asn	Phe	Asn	Asn	Arg	Pro	Asn	725	730	735	
Ser	Phe	Lys	Val	Leu	Ser	Pro	Pro	Arg	Thr	Cys	Val	Ala	Tyr	Tyr	Arg	740	745	750	
Val	Asp	Glu	Asp	Arg	Glu	Glu	Leu	Arg	Arg	Gly	Gly	Ala	Val	Ala	Ser	755	760	765	

Gly Lys Ile Val Thr Glu Tyr Ile Asp Val Glu Ala Thr Ser Gly Glu  
770 775 780

Thr Ile Ser Gly Gly Trp Lys Gly Ser Glu Lys Asp Asp Cys Gly Lys  
785 790 795 800

Lys Gly Met Lys Phe Val Phe Arg Ser Ser Asp Glu Asp Cys Lys Asp  
805 810 815

<210> 68

<211> 817

<212> PRT

<213> Zea mays

<400> 68

Met Leu Cys Leu Val Ser Pro Ser Ser Ser Pro Thr Pro Leu Pro Pro  
1 5 10 15

Pro Arg Arg Ser Arg Ser His Ala Asp Arg Ala Ala Pro Pro Gly Ile  
20 25 30

Ala Gly Gly Gly Asn Val Arg Leu Ser Val Leu Ser Val Gln Cys Lys  
35 40 45

Ala Arg Arg Ser Gly Val Arg Lys Val Lys Ser Lys Phe Ala Thr Ala  
50 55 60

Ala Thr Val Gln Asp Asp Lys Thr Met Ala Thr Ala Lys Gly Asp Val  
65 70 75 80

Asp His Leu Pro Ile Tyr Asp Leu Asp Pro Lys Leu Glu Ile Phe Lys  
85 90 95

Asp His Phe Arg Tyr Arg Met Lys Arg Tyr Leu Asp Gln Lys Gly Ser  
100 105 110

Ile Glu Glu Asn Glu Gly Ser Leu Glu Ser Phe Ser Lys Gly Tyr Leu  
115 120 125

Lys Phe Gly Ile Asn Thr Asn Asp Gly Thr Val Tyr Arg Glu Trp Ala  
130 135 140

Pro Ala Ala Gln Glu Ala Glu Leu Ile Gly Asp Phe Asn Asp Trp Asn  
145 150 155 160

Gly Ala Asn His Lys Met Glu Lys Asp Lys Phe Gly Val Trp Ser Ile  
165 170 175

Lys Ile Asp His Val Lys Gly Lys Pro Ala Ile Pro His Asn Ser Lys  
180 185 190

Val Lys Phe Arg Phe Leu His Gly Gly Val Trp Val Asp Arg Ile Pro  
195 200 205

Ala Leu Ile Arg Tyr Ala Thr Val Asp Ala Ser Lys Phe Gly Ala Pro  
210 215 220

Tyr	Asp	Gly	Val	His	Trp	Asp	Pro	Pro	Ala	Ser	Glu	Arg	Tyr	Thr	Phe
225					230					235					240
Lys	His	Pro	Arg	Pro	Ser	Lys	Pro	Ala	Ala	Pro	Arg	Ile	Tyr	Glu	Ala
				245					250					255	
His	Val	Gly	Met	Ser	Gly	Glu	Lys	Pro	Ala	Val	Ser	Thr	Tyr	Arg	Glu
			260					265					270		
Phe	Ala	Asp	Asn	Val	Leu	Pro	Arg	Ile	Arg	Ala	Asn	Asn	Tyr	Asn	Thr
		275					280					285			
Val	Gln	Leu	Met	Ala	Ile	Met	Glu	His	Ser	Tyr	Tyr	Ala	Ser	Phe	Gly
	290					295					300				
Tyr	His	Val	Thr	Asn	Phe	Phe	Ala	Val	Ser	Ser	Arg	Ser	Gly	Thr	Pro
305				310						315					320
Glu	Asp	Leu	Lys	Tyr	Leu	Asp	Lys	Ala	His	Ser	Leu	Gly	Leu	Arg	Val
			325						330					335	
Leu	Met	Asp	Val	Val	His	Ser	His	Ala	Ser	Asn	Asn	Val	Thr	Asp	Gly
			340					345					350		
Leu	Asn	Gly	Tyr	Asp	Val	Gly	Gln	Ser	Thr	Gln	Glu	Ser	Tyr	Phe	His
		355					360					365			
Ala	Gly	Asp	Arg	Gly	Tyr	His	Lys	Leu	Trp	Asp	Ser	Arg	Leu	Phe	Asn
	370					375					380				
Tyr	Ala	Asn	Trp	Glu	Val	Leu	Arg	Phe	Leu	Leu	Ser	Asn	Leu	Arg	Tyr
385					390					395					400
Trp	Asp	Glu	Phe	Met	Phe	Asp	Gly	Phe	Arg	Phe	Asp	Gly	Val	Thr	Ser
			405						410					415	
Met	Leu	Tyr	His	His	His	Gly	Ile	Asn	Val	Gly	Phe	Thr	Gly	Asn	Tyr
			420					425					430		
Gln	Glu	Tyr	Phe	Ser	Leu	Asp	Thr	Ala	Val	Asp	Ala	Val	Val	Tyr	Met
		435					440					445			
Met	Leu	Ala	Asn	His	Leu	Met	His	Lys	Leu	Leu	Pro	Glu	Ala	Thr	Val
	450					455					460				
Val	Ala	Glu	Asp	Val	Ser	Gly	Met	Pro	Val	Leu	Cys	Arg	Pro	Val	Asp
465					470					475					480
Glu	Gly	Gly	Val	Gly	Phe	Asp	Tyr	Arg	Leu	Ala	Met	Ala	Ile	Pro	Asp
			485						490					495	
Arg	Trp	Ile	Asp	Tyr	Leu	Lys	Asn	Lys	Asp	Asp	Ser	Glu	Trp	Ser	Met
			500					505					510		
Gly	Glu	Ile	Ala	His	Thr	Leu	Thr	Asn	Arg	Arg	Tyr	Thr	Glu	Lys	Cys
	515						520					525			

Ile Ala Tyr Ala Glu Ser His Asp Gln Ser Ile Val Gly Asp Lys Thr  
 530 535 540  
 Ile Ala Phe Leu Leu Met Asp Lys Glu Met Tyr Thr Gly Met Ser Asp  
 545 550 555 560  
 Leu Gln Pro Ala Ser Pro Thr Ile Asp Arg Gly Ile Ala Leu Gln Lys  
 565 570 575  
 Met Ile His Phe Ile Thr Met Ala Leu Gly Gly Asp Gly Tyr Leu Asn  
 580 585 590  
 Phe Met Gly Asn Glu Phe Gly His Pro Glu Trp Ile Asp Phe Pro Arg  
 595 600 605  
 Glu Gly Asn Asn Trp Ser Tyr Asp Lys Cys Arg Arg Gln Trp Ser Leu  
 610 615 620  
 Val Asp Thr Asp His Leu Arg Tyr Lys Tyr Met Asn Ala Phe Asp Gln  
 625 630 635 640  
 Ala Met Asn Ala Leu Asp Arg Phe Ser Phe Leu Ser Ser Ser Lys Gln  
 645 650 655  
 Ile Val Ser Asp Met Asn Glu Glu Lys Val Ile Val Phe Glu Arg Gly  
 660 665 670  
 Asp Leu Val Phe Val Phe Asn Phe His Pro Lys Lys Thr Tyr Glu Gly  
 675 680 685  
 Tyr Lys Val Gly Cys Asp Leu Pro Gly Lys Tyr Arg Val Ala Leu Asp  
 690 695 700  
 Ser Asp Ala Leu Val Phe Gly Gly His Gly Arg Val Gly His Asp Val  
 705 710 715 720  
 Asp His Phe Thr Ser Pro Glu Gly Pro Gly Val Pro Glu Thr Asn Phe  
 725 730 735  
 Asn Asn Arg Pro Asn Ser Phe Lys Val Leu Ser Pro Pro Arg Thr Cys  
 740 745 750  
 Val Ala Tyr Tyr Arg Val Asp Glu Ala Gly Ala Gly Arg Arg Leu His  
 755 760 765  
 Ala Lys Ala Glu Thr Gly Lys Thr Ser Pro Ala Glu Ser Ile Asp Val  
 770 775 780  
 Lys Ala Ser Arg Ala Ser Ser Lys Glu Asp Lys Glu Ala Thr Ala Gly  
 785 790 795 800  
 Gly Lys Lys Gly Trp Lys Phe Ala Arg Gln Pro Ser Asp Gln Asp Thr  
 805 810 815

Lys



<210> 69  
 <211> 765  
 <212> PRT  
 <213> Pisum sp.

<400> 69

Lys	Ser	Lys	Phe	Ser	Val	Val	Met	Thr	Asp	Asp	Lys	Ser	Thr	Met	Pro
1				5					10					15	
Ser	Val	Glu	Glu	Asp	Phe	Asp	Asn	Ile	Gly	Ile	Leu	Asn	Val	Asp	Ser
		20						25					30		
Ser	Leu	Glu	Pro	Phe	Lys	Asp	His	Phe	Lys	Tyr	Arg	Met	Lys	Arg	Tyr
	35						40					45			
Leu	His	Gln	Lys	Lys	Leu	Ile	Glu	Glu	Tyr	Glu	Gly	Gly	Leu	Gln	Glu
	50					55					60				
Phe	Ala	Lys	Gly	Tyr	Leu	Lys	Phe	Gly	Phe	Asn	Arg	Glu	Asp	Gly	Ile
65					70					75					80
Ser	Tyr	Arg	Glu	Trp	Ala	Pro	Ala	Ala	Gln	Glu	Ala	Gln	Ile	Ile	Gly
				85					90						95
Asp	Phe	Asn	Gly	Trp	Asn	Gly	Ser	Asn	Leu	His	Met	Glu	Lys	Asp	Gln
			100					105						110	
Phe	Gly	Val	Trp	Ser	Ile	Gln	Ile	Pro	Asp	Ala	Asp	Gly	Asn	Pro	Ala
		115					120						125		
Ile	Pro	His	Asn	Ser	Arg	Val	Lys	Phe	Arg	Phe	Lys	His	Ser	Asp	Gly
	130						135					140			
Val	Trp	Val	Asp	Arg	Ile	Pro	Ala	Trp	Ile	Lys	Tyr	Ala	Thr	Val	Asp
145					150					155					160
Pro	Thr	Arg	Phe	Ala	Ala	Pro	Tyr	Asp	Gly	Val	Tyr	Trp	Asp	Pro	Pro
				165					170						175
Leu	Ser	Glu	Arg	Tyr	Gln	Phe	Lys	His	Pro	Arg	Pro	Pro	Lys	Pro	Lys
			180					185						190	
Ala	Pro	Arg	Ile	Tyr	Glu	Ala	His	Val	Gly	Met	Ser	Ser	Ser	Glu	Pro
		195					200							205	
Arg	Val	Asn	Ser	Tyr	Arg	Glu	Phe	Ala	Asp	Asp	Val	Leu	Pro	Arg	Ile
	210					215						220			
Arg	Glu	Asn	Asn	Tyr	Asn	Thr	Val	Gln	Leu	Met	Ala	Ile	Met	Glu	His
225					230					235					240
Ser	Tyr	Tyr	Ala	Ser	Phe	Trp	Tyr	His	Val	Thr	Lys	Pro	Phe	Phe	Ala
				245					250						255
Val	Ser	Ser	Arg	Ser	Gly	Ser	Pro	Glu	Asp	Leu	Lys	Tyr	Leu	Asp	Lys
			260					265						270	

Ala	His	Ser	Leu	Gly	Leu	Asn	Val	Leu	Met	Asp	Val	Val	His	Ser	His	275	280	285
Ala	Ser	Asn	Asn	Val	Thr	Asp	Gly	Leu	Asn	Gly	Tyr	Asp	Val	Gly	Gln	290	295	300
Ser	Ser	Gln	Gln	Ser	Tyr	Phe	His	Ala	Gly	Asp	Arg	Gly	Tyr	His	Lys	305	310	315
Leu	Trp	Asp	Ser	Arg	Leu	Phe	Asn	Tyr	Ala	Asn	Trp	Lys	Ser	Ser	Phe	325	330	335
Leu	Leu	Ser	Asn	Leu	Arg	Tyr	Trp	Asp	Glu	Phe	Lys	Phe	Asp	Gly	Phe	340	345	350
Arg	Phe	Asp	Gly	Val	Thr	Ser	Met	Leu	Tyr	His	His	His	Gly	Ile	Asn	355	360	365
Met	Ala	Phe	Thr	Gly	Asp	Tyr	Asn	Glu	Tyr	Phe	Ser	Glu	Asp	Thr	Asp	370	375	380
Val	Asp	Ala	Val	Val	Tyr	Met	Met	Leu	Ala	Asn	Ser	Leu	Val	His	Asp	385	390	395
Ile	Leu	Pro	Glu	Ala	Thr	Asp	Val	Ala	Glu	Asp	Val	Ser	Gly	Met	Pro	405	410	415
Gly	Leu	Gly	Arg	Pro	Val	Ser	Glu	Val	Gly	Val	Gly	Phe	Asp	Tyr	Arg	420	425	430
Leu	Ala	Met	Ala	Ile	Pro	Asp	Lys	Trp	Ile	Asp	Tyr	Leu	Lys	Asn	Lys	435	440	445
Lys	Asp	Ser	Glu	Trp	Ser	Met	Lys	Glu	Ile	Ser	Leu	Asn	Leu	Thr	Asn	450	455	460
Arg	Arg	Tyr	Thr	Glu	Lys	Cys	Ile	Ser	Tyr	Ala	Glu	Ser	His	Asp	Gln	465	470	475
Ser	Ile	Val	Gly	Asp	Lys	Thr	Ile	Ala	Phe	Leu	Leu	Met	Asp	Glu	Glu	485	490	495
Met	Tyr	Ser	Ser	Met	Ser	Cys	Leu	Thr	Met	Leu	Ser	Pro	Thr	Ile	Asp	500	505	510
Arg	Gly	Ile	Ser	Leu	His	Lys	Met	Ile	His	Phe	Ile	Thr	Met	Ala	Leu	515	520	525
Gly	Gly	Asp	Gly	Tyr	Leu	Asn	Phe	Met	Gly	Asn	Glu	Phe	Gly	His	Pro	530	535	540
Glu	Trp	Ile	Asp	Phe	Pro	Arg	Glu	Gly	Asn	Gly	Trp	Ser	Tyr	Asp	Lys	545	550	555
Cys	Arg	Leu	Thr	Gln	Trp	Asn	Leu	Val	Asp	Thr	Asn	His	Leu	Arg	Tyr	565	570	575

Lys Tyr Met Asn Ala Phe Asp Arg Ala Met Asn Leu Leu Asp Lys Phe  
                   580                                  585                                  590  
 Ser Ile Leu Ala Ser Thr Lys Gln Ile Val Ser Ser Thr Asn Asn Glu  
                   595                                  600                                  605  
 Lys Val Ile Val Phe Glu Arg Gly Asp Leu Val Phe Val Phe Asn Phe  
                   610                                  615                                  620  
 His Pro Glu Asn Thr Tyr Glu Gly Tyr Lys Val Gly Cys Asp Leu Pro  
                   625                                  630                                  635                                  640  
 Gly Lys Tyr Arg Val Ala Leu Asp Ser Asp Ala Thr Glu Phe Gly Gly  
                                   645                                  650                                  655  
 His Gly Arg Val Gly His Asp Ala Asp Gln Phe Thr Ser Pro Glu Gly  
                                   660                                  665                                  670  
 Pro Gly Val Pro Glu Thr Asn Phe Asn Asn Arg Pro Asn Ser Phe Lys  
                                   675                                  680                                  685  
 Val Leu Ser Pro Pro His Thr Cys Val Val Tyr Tyr Arg Val Asp Glu  
                   690                                  695                                  700  
 Arg Gln Glu Glu Ser Asn Asn Pro Asn Leu Gly Ser Glu Glu Thr Ala  
                   705                                  710                                  715                                  720  
 Ala Ala Asp Thr Asp Val Ala Arg Ile Pro Asp Val Ser Glu Ser Glu  
                                   725                                  730                                  735  
 Asp Ser Asn Leu Asp Arg Glu Glu Asn Ser Asp Asp Ala Val Asp Ala  
                                   740                                  745                                  750  
 Gly Ile Phe Lys Val Glu Arg Glu Val Val Gly Asp Asn  
                   755                                  760                                  765

<210> 70  
 <211> 852  
 <212> PRT  
 <213> Solanum sp.

<400> 70  
 Met Glu Ile Asn Phe Lys Val Leu Ser Lys Pro Ile Arg Gly Ser Phe  
   1                                  5                                  10                                  15  
 Pro Ser Phe Ser Pro Lys Val Ser Ser Gly Ala Ser Arg Asn Lys Ile  
                                   20                                  25                                  30  
 Cys Pro Ser Gln His Ser Thr Gly Leu Lys Phe Gly Ser Gln Glu Arg  
                   35                                  40                                  45  
 Ser Trp Asp Val Ser Ser Thr Pro Lys Ser Arg Val Arg Lys Asp Glu  
                   50                                  55                                  60  
 Arg Met Lys His Ser Ser Ala Ile Ser Ala Val Leu Thr Asp Asp Asn  
   65                                  70                                  75                                  80

Ser	Thr	Met	Ala	Pro	Leu	Glu	Glu	Asp	Val	Lys	Thr	Asp	Asn	Ile	Gly	85	90	95
Leu	Leu	Asn	Leu	Asp	Pro	Thr	Leu	Glu	Pro	Phe	Leu	Asp	His	Phe	Arg	100	105	110
His	Arg	Met	Lys	Arg	Tyr	Val	Asp	Gln	Lys	Met	Leu	Ile	Glu	Lys	Tyr	115	120	125
Glu	Gly	Pro	Leu	Glu	Glu	Phe	Ala	Gly	Gly	Tyr	Leu	Lys	Phe	Gly	Phe	130	135	140
Asn	Arg	Glu	Gly	Cys	Ile	Val	Tyr	Arg	Glu	Trp	Ala	Pro	Ala	Ala	Gln	145	150	155
Glu	Asp	Glu	Val	Ile	Gly	Asp	Phe	Asn	Gly	Trp	Asn	Gly	Ser	Asn	His	165	170	175
Met	Met	Glu	Lys	Asp	Gln	Phe	Gly	Val	Trp	Ser	Ile	Arg	Ile	Pro	Asp	180	185	190
Val	Asp	Ser	Lys	Pro	Val	Ile	Pro	His	Asn	Ser	Arg	Val	Lys	Phe	Arg	195	200	205
Phe	Lys	His	Gly	Asn	Gly	Val	Trp	Val	Asp	Arg	Ile	Pro	Ala	Trp	Ile	210	215	220
Lys	Tyr	Ala	Thr	Ala	Asp	Ala	Thr	Lys	Phe	Ala	Ala	Pro	Tyr	Asp	Gly	225	230	235
Val	Tyr	Trp	Asp	Pro	Pro	Pro	Ser	Glu	Arg	Tyr	His	Phe	Lys	Tyr	Pro	245	250	255
Arg	Pro	Pro	Lys	Pro	Arg	Ala	Pro	Arg	Ile	Tyr	Glu	Ala	His	Val	Gly	260	265	270
Met	Ser	Ser	Ser	Glu	Pro	Arg	Val	Asn	Ser	Tyr	Arg	Glu	Phe	Ala	Asp	275	280	285
Asp	Val	Leu	Pro	Arg	Ile	Lys	Ala	Asn	Asn	Tyr	Asn	Thr	Val	Gln	Leu	290	295	300
Met	Ala	Ile	Met	Glu	His	Ser	Tyr	Tyr	Gly	Ser	Phe	Gly	Tyr	His	Val	305	310	315
Thr	Asn	Phe	Phe	Ala	Val	Ser	Ser	Arg	Tyr	Gly	Asn	Pro	Glu	Asp	Leu	325	330	335
Lys	Tyr	Leu	Asp	Lys	Ala	His	Ser	Leu	Gly	Leu	Gln	Val	Leu	Val	Asp	340	345	350
Val	Val	His	Ser	His	Ala	Ser	Asn	Asn	Val	Thr	Asp	Gly	Leu	Asn	Gly	355	360	365
Tyr	Asp	Val	Gly	Gln	Gly	Ser	Gln	Glu	Ser	Tyr	Phe	His	Ala	Gly	Asp	370	375	380

Arg Gly Tyr His Lys Leu Trp Asp Ser Arg Leu Phe Asn Tyr Ala Asn  
 385 390 395 400  
 Trp Glu Val Leu Arg Phe Leu Leu Ser Asn Leu Arg Tyr Trp Asp Glu  
 405 410 415  
 Phe Asn Phe Asp Gly Phe Arg Phe Asp Gly Val Thr Ser Met Leu Tyr  
 420 425 430  
 Val His His Gly Ile Asn Met Gly Phe Thr Gly Asn Tyr Asn Glu Tyr  
 435 440 445  
 Phe Ser Glu Ala Thr Asp Val Asp Ala Val Val Tyr Met Met Leu Ala  
 450 455 460  
 Asn Asn Leu Ile His Lys Ile Leu Pro Glu Ala Thr Val Val Ala Glu  
 465 470 475 480  
 Asp Val Ser Gly Met Pro Gly Leu Gly Arg Pro Val Ser Glu Gly Gly  
 485 490 495  
 Val Gly Phe Asp Tyr Arg Leu Ala Met Ala Ile Pro Asp Lys Trp Ile  
 500 505 510  
 Asp Tyr Leu Lys Asn Lys Asn Asp Glu Glu Trp Ser Met Lys Glu Ile  
 515 520 525  
 Thr Ser Ser Leu Thr Asn Arg Arg Tyr Thr Glu Lys Cys Ile Ala Tyr  
 530 535 540  
 Ala Glu Ser His Asp Gln Ser Ile Val Gly Asp Lys Thr Ile Ala Phe  
 545 550 555 560  
 Leu Leu Met Asp Lys Glu Met Tyr Ser Gly Met Ser Cys Leu Thr Asp  
 565 570 575  
 Ala Ser Pro Val Ile Asp Arg Gly Ile Ala Leu His Lys Met Ile His  
 580 585 590  
 Phe Phe Thr Met Ala Leu Gly Gly Asp Gly Tyr Leu Asn Phe Met Gly  
 595 600 605  
 Asn Glu Phe Gly His Pro Glu Trp Ile Asp Phe Pro Arg Glu Gly Asn  
 610 615 620  
 Asn Trp Ser Tyr Asp Lys Cys Arg Arg Gln Trp Asn Leu Ala Asp Ser  
 625 630 635 640  
 Asp His Leu Arg Tyr Lys Tyr Met Asn Ala Phe Asp Arg Ala Met Asn  
 645 650 655  
 Ser Leu Asp Lys Phe Ser Phe Leu Ala Ser Gly Lys Gln Ile Val Ser  
 660 665 670  
 Ser Met Asp Glu Glu Asn Lys Val Ile Val Phe Glu Arg Gly Asp Leu  
 675 680 685

Val Phe Val Phe Asn Phe His Pro Lys Asn Thr Tyr Glu Gly Tyr Lys  
 690 695 700  
 Val Gly Cys Asp Leu Pro Gly Lys Tyr Arg Val Ala Leu Asp Ser Asp  
 705 710 715 720  
 Ala Trp Glu Phe Gly Gly His Gly Arg Thr Gly His Asp Val Asp His  
 725 730 735  
 Phe Thr Ser Pro Glu Gly Pro Gly Val Pro Glu Thr Asn Phe Asn Gly  
 740 745 750  
 Arg Gln Ile Pro Ser Lys Cys Cys Leu Leu Arg Glu His Val Trp Leu  
 755 760 765  
 Ile Thr Glu Leu Met Asn Ala Cys Gln Lys Leu Lys Ile Thr Arg Gln  
 770 775 780  
 Thr Phe Val Val Ser Tyr Tyr Gln Gln Pro Val Ser Arg Arg Val Thr  
 785 790 795 800  
 Arg Asn Leu Lys Ile Arg Tyr Leu Gln Ser Val Thr Thr Asn Ala Tyr  
 805 810 815  
 Gln Lys Leu Lys Phe Thr Arg Gln Thr Phe Val Ser Tyr Tyr Gln Gln  
 820 825 830  
 Pro Ile Leu Arg Arg Thr Arg Lys Leu Lys Asp Ser Leu Ser Thr Asn  
 835 840 845  
 Ile Ser Thr Phe  
 850

<210> 71  
 <211> 686  
 <212> PRT  
 <213> Triticum tauschii

<400> 71  
 Met Leu Cys Leu Ser Ser Ser Leu Leu Pro Arg Pro Ser Ala Ala Pro  
 1 5 10 15  
 Pro Arg Ala Asp Arg Pro Leu Pro Gly Ile Ile Ala Gly Gly Gly Gly  
 20 25 30  
 Gly Lys Arg Leu Ser Val Val Pro Ser Val Pro Phe Leu Leu Arg Arg  
 35 40 45  
 Leu Trp Pro Arg Lys Ala Lys Ser Lys Ser Phe Val Ser Val Thr Ala  
 50 55 60  
 Arg Gly Asn Lys Ile Ala Ala Thr Thr Gly Tyr Gly Ser Asp His Leu  
 65 70 75 80  
 Pro Ile Tyr Asp Leu Asp Leu Lys Leu Ala Glu Phe Lys Asp His Phe  
 85 90 95

Asp Tyr Thr Arg Asn Arg Tyr Ile Asp Gln Lys His Leu Ile Glu Lys  
 100 105 110  
 His Glu Gly Ser Leu Glu Glu Phe Ser Lys Gly Tyr Leu Lys Phe Gly  
 115 120 125  
 Ile Asn Thr Glu His Gly Ala Ser Val Tyr Arg Glu Trp Ala Pro Ala  
 130 135 140  
 Ala Glu Glu Ala Gln Leu Ile Gly Asp Phe Asn Asn Trp Asn Gly Ser  
 145 150 155 160  
 Gly His Lys Met Ala Lys Asp Asn Phe Gly Val Trp Ser Ile Arg Ile  
 165 170 175  
 Ser His Val Asn Gly Lys Pro Ala Ile Pro His Asn Ser Lys Val Lys  
 180 185 190  
 Phe Arg Phe Arg His His Gly Val Trp Val Asp Gln Ile Pro Ala Trp  
 195 200 205  
 Ile Arg Tyr Ala Thr Val Thr Ala Ser Glu Ser Gly Ala Pro Tyr Asp  
 210 215 220  
 Gly Leu His Trp Asp Pro Pro Ser Ser Glu Arg Tyr Val Phe Asn His  
 225 230 235 240  
 Pro Arg Pro Pro Lys Pro Asp Val Pro Arg Ile Tyr Glu Ala His Val  
 245 250 255  
 Gly Val Ser Gly Gly Lys Leu Glu Ala Gly Thr Tyr Arg Glu Phe Pro  
 260 265 270  
 Asp Asn Val Leu Pro Cys Leu Arg Ala Thr Asn Tyr Asn Thr Val Gln  
 275 280 285  
 Leu Met Gly Ile Met Glu His Ser Asp Ser Ala Ser Phe Gly Tyr His  
 290 295 300  
 Val Thr Asn Phe Phe Ala Val Ser Ser Arg Ser Gly Thr Pro Glu Asp  
 305 310 315 320  
 Leu Lys Tyr Leu Asp Lys Ala His Ser Leu Gly Leu Arg Val Leu Met  
 325 330 335  
 Asp Val Val His Ser His Ala Ser Asn Asn Val Ile Asp Gly Leu Asn  
 340 345 350  
 Gly Tyr Asp Val Gly Gln Ser Ala His Glu Ser Tyr Phe Tyr Thr Gly  
 355 360 365  
 Asp Lys Gly Tyr Asn Lys Leu Trp Asn Gly Arg Leu Phe Asn Tyr Ala  
 370 375 380  
 Asn Trp Glu Val Leu Arg Phe Leu Leu Ser Asn Leu Arg Tyr Trp Asp  
 385 390 395 400

Glu Phe Met Phe Asp Gly Phe Arg Phe Val Gly Val Thr Ser Met Leu  
 405 410 415  
 Tyr Asn His Asn Gly Ile Asn Met Ser Phe Asn Gly Asn Tyr Lys Glu  
 420 425 430  
 Tyr Ile Gly Leu Asp Thr Asn Val Asp Ala Phe Val Tyr Met Met Leu  
 435 440 445  
 Ala Asn His Leu Met His Lys Leu Leu Pro Glu Ala Ile Val Val Ala  
 450 455 460  
 Val Asp Val Ser Gly Met Pro Val Leu Cys Arg Pro Val Asp Glu Gly  
 465 470 475 480  
 Gly Leu Gly Phe Asp Tyr Arg Gln Ala Met Thr Ile Pro Asp Arg Trp  
 485 490 495  
 Ile Asp Tyr Leu Glu Asn Lys Gly Asp Gln Gln Trp Ser Met Ser Ser  
 500 505 510  
 Val Ile Ser Gln Thr Leu Thr Asn Arg Arg Tyr Pro Glu Lys Phe Ile  
 515 520 525  
 Ala Tyr Ala Glu Arg Gln Asn His Ser Ile Val Gly Ser Lys Thr Met  
 530 535 540  
 Ala Phe Leu Leu Met Asp Trp Glu Thr Tyr Ser Gly Met Ser Ala Leu  
 545 550 555 560  
 Asp Pro Asp Ser Pro Thr Ile Asp Arg Ala Ile Ala Leu Gln Lys Met  
 565 570 575  
 Ile His Phe Ile Thr Met Ala Leu Gly Gly Asp Ser Tyr Leu Lys Phe  
 580 585 590  
 Met Gly Asn Glu Tyr Met Asn Ala Phe Val Gln Ala Val Asp Thr Pro  
 595 600 605  
 Ser Lys Cys Ser Phe Leu Ser Ser Ser Asn Gln Thr Ala Ser His Met  
 610 615 620  
 Asn Glu Glu Lys Gly Ser Ala Phe Thr Lys Gly Phe Thr His Leu Arg  
 625 630 635 640  
 Ser Gly Cys Tyr Glu Pro Ser Leu Pro Ser Thr Ser Ser Cys Ala Leu  
 645 650 655  
 Leu Gly Pro Ser Asn Gln Ser Pro Phe Ser Lys Pro Phe Ile Gly Phe  
 660 665 670  
 Pro Gly Cys Ile Phe Cys Cys Gly Leu Phe Lys Gly Glu Phe  
 675 680 685